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NCERT

Annual Report

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NCERT

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्

NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

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ACKNOWLEDGEMENTS

THE National Council of Educational Research and Training (NCERT) is indebted to the Union Minister of Education and Culture for his keen interest in its affairs. The Council is grateful to the experts who spared their valuable time to serve on its committees and extended help in many other ways. Thanks are also due to several organisations and institutions and, 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,

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NCERT : Role and Functions

THE National Council of Educational Research and Training was established by the Ministry of Education in September 1961, in the first instance, by merging a number of specialized institutions, like the Directorate of Extension Programmes for Secon-

dary Education, Bureaus of Educational and Vocational Guidance and Textbook, National Institute of Basic Education, National Institute of Audio-Visual Education etc., which the Ministry had set up to provide academic inputs for improving the quality of school education. From the very inception the NCERT has played a dynamic role, responding to new challenges from time to time, and growing and re-shaping itself in the light of the changing national needs and aspirations.

The objective of the NCERT, as indicated in its Memorandum of Association, is 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 the objective, the Council undertakes the following programmes and activities :

- (a) Conducts, aids, promotes and co-ordinates research in all branches of school education;
- (b) Organises pre-service and in-service training, mainly at an advanced level;
- (c) Organises extension services for institutions, organisations 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 State-level institutions, organisations and agencies in developing and implementing programmes for qualitative improvement of school education;
- (g) Collaborates with international organisations like the UNICEF, UNESCO, 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 for Teacher Education.

Role and Functions

As an apex educational institution, the Council plays an important role in educational reconstruction through its programmes of educational research, development, training, extension, coordination, clearing house, and publications. The give-and-take as a part of collaboration and inter-action with international educational agencies constantly enrich its programmes.

Research and innovations in the field of education are actively encouraged and supported by the Council through its Educational Research and Innovations Committee (ERIC). Financial assistance is given to competent individuals and institutions for undertaking research relevant to educational needs and priorities. Besides supporting the research effort of others, the Council itself conducts significant research in different areas of education. It also operates a scheme of research fellowships to attract and promote research talent. It conducts educational surveys which help in educational planning.

As part of its developmental activities the Council has undertaken revision and development of curricula and the preparation of textbooks to suit the needs of the new pattern of school education. It also develops teachers' guides, students' workbooks, supplementary reading materials and research monographs. It has also undertaken experimental programmes of non-formal education so that sufficient experience becomes available for adopting it as a major strategy for universalisation of elementary education. It has assisted the States in conducting surveys and developing curricular and instructional materials for the programme of vocationalisation of school education. The NCERT produces quality textbooks, low-cost science kits for elementary and secondary schools, laboratory equipment, educational films and teaching aids. These programmes have acquired renewed vigour in the context of the new curriculum.

The training and extension activities, through which the NCERT assists the States in the adoption of innovative practices, constitute one of its major functions. To ensure a multiplier effect, the Council has adopted the strategy of training key persons at the state level, whose services may in turn be utilised for training teachers and other local level functionaries. With a view to maintaining closer links and liaison with the States and Union Territories, the Council has established 18 Field Units located in State capitals.

The dissemination of educational information is another major function of the council. As part of this activity it publishes four journals, covering different content areas and catering to different levels of readers. These are 'Indian Educational Review', 'The Journal of Indian Education', 'School Science' and 'The Primary Teacher' (in English and Hindi).

Besides directly taking up programmes for the improvement of school education, the Council also assists professional educational

organisations in the country which undertake innovative programmes which have implications for the improvement of school education and for enhancing its relevance.

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 thus maintains a two-way flow of educational ideas with other countries by sending delegations to study specific educational problems relevant to our requirements and by arranging training and study visits of foreign nationals. This is also done under the sponsorship of the UNESCO and other international agencies. The Council deposes its officers to various international seminars/conferences and receives foreign visitors. The NCERT is one of the Associated Centres under the Asian Programme of Educational Innovations for Development (APEID) sponsored by the Regional Office of Education in Asia and Oceania, Bangkok.

Structure and Administration

THE COUNCIL

The policy-making body for the National Council of Educational Research and Training is the Council. The Union Minister for Education is the President of the Council. Besides, the Chairman of the University Grants Commission and the Secretary to the Ministry of Education, the membership of the Council comprises of four Vice-Chancellors of universities, one from each region, nominated by the Government of India, one representative of each State Government or Union Territory with a Legislature, who is the Education Minister of the State/Union Territory (or his representative) and, in the case of Delhi, the Chief Executive Councillor (or his representative); all members of the Executive Committee (not included above), Chairman, Central Board of Secondary Education, New Delhi; Commissioner, Kendriya Vidyalaya Sangathan, New Delhi; Director, Central Health Education Bureau (D.G.H.S.), New Delhi, Deputy Director-General in charge of Agricultural Education, I.C.A.R., Director of Training, Directorate-General of Training and Employment, Ministry of Labour, New Delhi; a representative of the Education Division, Planning Commission, New Delhi, and six other persons nominated by Government of India from time to time, out of which not less than four have to be school teachers. The composition of the apex body ensures representation of all the States and educational interests.

The Council has constituted a number of Committees to look after the governance and academic affairs of the NCERT. Some of the important ones are indicated below:

Executive Committee : The Executive Committee is the governing body of the Council as described in the Memorandum of Association. The list of the members of the Committee for 1979-80 is given in Appendix C. The Committee has under its control and management all the affairs and funds of the Council and has authority to exercise all the powers of the Council. The Executive Committee is assisted in its work by the following Standing Committees of Executive Committee.

(i) Programme Advisory Committee: The Programme Advisory Committee makes recommendations to the Executive Committee regarding the lines on which research, training, extension and other programmes of the Council should be conducted and the channels into which they should be guided in order to serve best the object of promoting the improvement of school education in the country, keeping in view the role of the Council as outlined in Article 3 of the Memorandum of Association. It is the responsibility of the Programme Advisory Committee to consider all plans, programmes, research proposals, etc., to examine the academic aspects of the work of the Council and to ensure a co-ordinated approach to the development of its programmes.

The Educational Research and Innovations Committee (ERIC) scrutinises and recommends to the Programme Advisory Committee the proposals of research of the Departmental and outside agencies.

(ii) Other Standing Committees of the Council: The Council has the following Standing Committees which have decision-making powers related to their functions :

Establishment Committee deals with all establishment matters.

Finance Committee is concerned with all financial matters.

Building and Works Committee is concerned with building programmes.

Managing Committees of the Regional Colleges of Education are concerned with the programmes of the colleges.

REORGANIZATION OF THE COUNCIL

In the light of the recommendations contained in the Report of the Administrative Staff College, Hyderabad, the Executive Committee approved the reorganisation of the Council. As a result of this, some new departments/units came into being, either by abolishing or by merging together of the earlier units into new ones in order to streamline their functioning and to look after some need-based educational problems more effectively. The new Departments/Units/Groups which were constituted during 1979-80 are:

- Department of Measurement and Evaluation
- Child Study Unit
- Educational Psychology Unit
- Socially Useful Productive Work Unit
- Tribal Education Unit
- Women's Education Unit
- Population Education Unit
- Extension Unit
- Comprehensive Access to Primary Education Group
- Curriculum Group
- Planning, Co-ordination & Evaluation Unit
- Central Co-ordination Unit
- Non-Formal Education Group
(directly under the
Joint Director).

A complete list of Council's Constituents is given in the Annexure to this section.

These Departments/Units/Groups are concerned with specific areas of work; their functions cover research, development, training, evaluation and dissemination.

Consequent upon the reorganisation of the Council, the following Committees have been established to advise the Departments/Units in the planning and implementation of the programmes:

(i) *Advisory Committee of Planning Co-ordination and Evaluation Unit* : The Planning, Co-ordination and Evaluation Unit was set up in September, 1979 to develop in collaboration with constituent units a long-term development plan for the Council, to ensure that duplication and overlap in effort is avoided, to generally monitor and evaluate

the programmes of the Council on a continuous basis. The Unit functions under the guidance of the Director and the general supervision of the Joint Director.

An Advisory Committee, comprising Director as its Chairman and Joint Director, Secretary, Head of the Unit (as convenor) and the Chief Accounts Officer, advises the Unit about its functions.

(ii) *Advisory Committee for School Curriculum* : This Committee was set up with effect from the 21st March, 1980, with the following functions:

- To review from time to time the school curriculum at all stages of school education;
- To recommend a curricular framework that may be followed at different levels of school education;
- To develop guidelines for the formulation and implementation of curricula;
- To review the progress in the matter of development and implementation of curriculum and to suggest ways of helping in the task of implementation;
- To recommend research priorities in the area of school curriculum.

In addition to the Committees indicated above, the Council also established during 1979-80 the following Co-ordination Committee for effecting and ensuring inter-departmental co-ordination in some of the major areas of educational programmes and activities in which several departments are involved.

- Co-ordination Committee for Curriculum Development
- Co-ordination Committee for Educational Technology
- Co-ordination Committee for Non-Formal Education
- Co-ordination Committee for Measurement and Evaluation.

The main functions of these Committee are :

- To identify priority area of research and development;
- To indicate the type of programmes that the various Departments should take up;
- To ensure that there is no duplication in the programmes undertaken by various Departments;

To develop mechanics of interaction with Regional Colleges of Education and such State-level Institutions as SCERTs and SIEs.

To periodically review and evaluate the Departmental Programmes.

Evolution of Regional Centres of Education: With regard to the set up of the Council at the regional level the ASCI had recommended that the Regional Colleges of Education should be developed as Regional Centres of Educational Research and Training. The Executive Committee had decided that the Colleges should gradually develop into Centres of Teacher Education, post-graduate teaching and research should be continued in them; they should devote their attention to co-ordination of development in the educational field among the States within their respective jurisdiction and that they should also function as the implementation arm of the NCERT, extending into the field for the purpose of follow-up and implementation of the recommendations of the National Council of Teacher Education. In the priority area of universalisation of elementary education, the Colleges were directed to play a major role in assisting the development of elementary teacher training institutions which require upgradation.

Strengthening of the Field Adviser's Offices : The NCERT has so far set up 18 Field Advisers' Offices in different States. In order to establish more effective liaison with the state education authority, these offices are being further strengthened, particularly in the nine educationally backward States and the States and Union Territories of the north-eastern region where institutional structures for effecting quality improvement of school education are not yet fully developed.

Creation of Functional and Autonomous Units for Publication of Textbooks, National Talent Search, Production of Science Kits and Central Film Library : It has been decided to develop the Publication Department as a functionally self-accounting, self-administering unit.

The Council is considering the possibility of decentralising to the State level the initial screening of students who apply for the award of the National Talent Scholarships.

It has also been decided that the Science Workshop should concern itself primarily with the designing of prototypes and leave large scale production and distribution to State-level authorities.

COUNCIL SECRETARIAT

The Council Secretariat continued to manage during the year under review house-keeping jobs. It has played its role as a facilitator to the Council in achieving its academic and research objectives through providing basic service and infra-structural amenities, such as personnel and staff welfare, accounts, budgeting, public relations, office maintenance, supplies and services etc. A Death-cum-Retirement Relief Scheme for the benefit of employees of the Council, particularly those belonging to low income groups, was introduced with effect from 1-12-1979. Under this scheme, the family of an employee will get on his demise while in service a sum of Rs. 1,000/- followed by Rs. 150/- per month for a period of twelve months.

To effectively implement the scheme of reservations of vacancies for the Scheduled Castes and Scheduled Tribes communities, a separate section was set up during the year. An Internal Work Study Unit was also set up to examine and report about the staffing strength of the different Departments/Sections etc. of the Council and to suggest improvements in the existing procedures for better management of the affairs of the Council. In this connection help of the Institute of Secretariat Training and Management of the Government of India was sought. As a part of its staff development activities, in-service training of Secretariat staff has continued and various categories of officials have already been provided training.

Efforts have been made to provide facilities for sports and games at the Campus. Cultural activities have also been given encouragement.

The Council Secretariat is headed by Secretary who works under the general guidance and direction of the Joint Director and Director. During the year, a Deputy Secretary has been appointed to assist the Secretary in his multifarious duties and responsibilities. The Secretariat has also been strengthened by creating some more posts of Under Secretaries and supervisory staff keeping in view the recommendations of the Administrative Staff College, Hyderabad.

A number of Staff Associations have been constituted and the authorities of the Council maintain a useful dialogue with their representative with regard to service and other matters. A proposal for having a suitable joint consultative machinery in the Council is also under active consideration.

The following were the principal executives of the Council during the year 1979-80 :

Director	Dr. Shib K. Mitra
Joint Director	Dr. A. N. Bose (Up to July, 1979) Dr. T. N. Dhar (from July, 1979)
Secretary	Shri V. K. Pandit, IAS
Deans :	
Research	Dr. R. C. Das
Academic	Dr. R. C. Das
Co-ordination	Dr. A. N. Bose

CONSTITUENTS OF N. C. E. R. T.

- I. (a) COUNCIL SECRETARIAT**
- (b) ACCOUNTS BRANCH**

II. NATIONAL INSTITUTE OF EDUCATION

1. Department of Teacher Education
2. Department of Education in Science and Mathematics
3. Department of Education in Social Sciences and Humanities
4. Department of Measurement and Evaluation
5. Department of Teaching Aids
6. Extension Unit
7. National Talent Search Unit
8. Population Education Unit
9. Vocationalization of Education Unit
10. Socially Useful Productive Work Unit
11. Survey and Data Processing Unit
12. Educational and Vocational Guidance Unit
13. Educational Psychology Unit
14. Child Study Unit
15. Women's Education Unit
16. Tribal Education Unit
17. Non-Formal Education Group
18. Curriculum Group
19. Primary Curriculum Development Cell
20. Comprehensive Access to Primary Education Cell
21. ERIC Secretariat
22. Journals Cell
23. Publications Department

24. Workshop Department
25. Library and Documentation Unit
26. Central Coordination Unit
(Unicef Assisted Projects)
27. Planning Co-ordination and Evaluation Unit

III. REGIONAL COLLEGES OF EDUCATION

1. Regional College of Education, Ajmer
2. Regional College of Education, Bhopal
3. Regional College of Education, Bhubaneswar
4. Regional College of Education, Mysore

IV. CENTRE FOR EDUCATIONAL TECHNOLOGY

V. FIELD ADVISERS' OFFICES

1. Ahmedabad
2. Allahabad
3. Bangalore
4. Bhopal
5. Bhubaneswar
6. Calcutta
7. Chandigarh
8. Delhi
9. Gauhati
10. Hyderabad
11. Imphal
12. Jaipur
13. Madras
14. Patna
15. Pune
16. Shillong
17. Srinagar
18. Trivandrum

2

Main Directions and Future Out- look

As in the past, the priorities of the National Council of Educational Research and Training were derived during 1979-80 from three sources viz. the priorities in educational effort and the imperatives of the educational sector, particularly those

emanating from the need to make the teaching-learning process more effective. The effort made by the NCERT in regard to the latter are discussed in the other sections of the report. Important socio-economic concerns which guided the academic research and training effort of the National Council of Educational Research and Training constitute the focus of the present section.

Established for working towards the qualitative improvement of school education, the NCERT caters primarily to the needs of children in the age-group 6-18, both in the formal schools and non-formal settings. Forging its way up the path of progress, the NCERT, therefore, envisages strengthening of its current activities and also adding new areas and dimensions to them in the years to come.

(1) Universalisation of Elementary Education : Universalisation of elementary education and the need to relate education more purposefully to economic development has been the chief concern of the Council. This is being attempted through the introduction of Socially Useful Productive Work as an essential ingredient of school curriculum. In regard to universalisation of elementary education, the Council's effort has been primarily directed towards developing non-formal education as an alternative strategy to provide education for those children who are unable to enrol in the formal system and those who drop out of the system prematurely. Experimentation with decentralization and formulation of area and group specific curriculum, which have already commenced, are proposed to be taken further.

(2) Vocationalisation of Education : Indisputably believing in the potentialities of education in and through productive work, the NCERT programmes in the area of Socially Useful Productive Work (SUPW) are proposed to be streamlined, particularly for inculcating upon the children a sense of dignity of labour. An extension of this idea has been the proposal for vocationalisation of education at the post-secondary stage designed to provide students, on the basis of their interests and aptitudes, education directly related to the requirements of identified occupations.

The Council has been providing continued support to the school systems of the states in the form of academic help and guidance, training of teachers, development of instructional materials and evaluation of programmes. Activities in this area are also proposed

to be further strengthened in view of the long-term perspective of the purposes of school education.

(3) Education of the Disadvantaged : Considering that most of the non-enrolled children and those who drop out of the system (without completing the full period of the compulsory education) belong to the economically and socially disadvantaged group like the Scheduled Castes and Scheduled Tribes and other backward classes, the Council has been engaged in attempting a variety of approaches for promoting education among these sections. The concern of the Council for making a real dent in this direction is reflected in its decisions to broadbase its activities through its Scheduled Castes and Scheduled Tribes Education Unit. In addition to the activities that are proposed to be taken up by the Council, funds have been specially allocated for supporting research on education in this area. Furthermore, the effort to implement the recommendations of a recent national seminar organized by the Council on the subject will provide the main focus of activities for the next five years.

(4) Education of Girls : As in the case of the disadvantaged groups, educational facilities are also not being taken full advantage of by girls. They not only do not enrol but also withdraw from the system as soon as they reach the age of adolescence. Many reasons account for this phenomenon, the main among them being social prejudice and the need for engaging girls in domestic chores, irrelevance of the instructional programmes for their life tasks and so on. The women's Education Unit of the NCERT has been concentrating its efforts on identifying the various limiting factors, particularly those which relate to the status of women in society and curricular irrelevance, which prevent women from taking full benefit of educational facilities.

(5) Population Education : The Council has been working in the area of the Population Education since 1969 and has given considerable thought and attention to the promotion among students, of the consciousness of the adverse effects that over-population has on individual and national development. The approach adopted is to promote through various subjects an understanding of the implications of population growth for resources, development and the general quality of life. The Council has also taken up the task of implementing a massive programme of population education in the States and to that end developed a comprehensive project. The

project documents for various States were developed and signed by the state authorities. The project has already been initiated in 10 States and is proposed to be extended to another 9 states in the year 1980-81 with concrete proposals for the intensification of the activities in this area in the coming years. This is being launched with assistance from the United Nations Fund for Population Activities.

(6) Special Education : Another important area in which the Council has decided to develop programmes is that of Special Education. The erstwhile Education Minister (the then President of the Council), had made at the last general body meeting, pointed reference to the desirability of the Council's taking up the training of teachers for children suffering from various handicaps and preparatory steps were taken to develop a plan of operation. It is expected that Council, particularly its Regional Colleges of Education, will be in a position to undertake experimental work and innovative teacher-training effort in this area.

(7) Education in Values : The inculcation of appropriate values upon the students, particularly in the context of a situation where human beings tend to live an isolated existence and a life of unconcern with the social and moral obligations, has been engaging the attention of the Council. Efforts to identify values which should underlie the education system in the context of a pluralistic society and the development of textual materials in this area continued to be given priority. The Council also reviewed the efforts made by some States and organisations in this direction which it proposes to extend and intensify.

(8) Environmental Studies : Problems related to the environment have, of late, emerged as major social concerns. The need is to provide knowledge of environment and the need to prevent its misuse and to develop among students the ability to deal with such problems as pollution, inefficient use of environmental sources etc. As it provides the most important learning source, the Council has developed approaches and materials, effectively using the environment for enriching the teaching-learning process. Environmental studies programmes in science and social sciences have taken a significant direction in which the Council has made intensive efforts. This is proposed to be further diversified in years to come.

(9) Nutrition and Health Education : Nutrition and Health Education and Environmental Sanitation have been identified as major areas where knowledge and competence of the students must be promoted, particularly so in the rural areas, in view of the large scale malnutrition and morbidity that prevail there. The Department of Education in Science and Mathematics continued to work in these areas and tried to integrate concepts and practices of nutrition and health education in the curricular programme of schools. The package of instructional materials developed under the UNICEF-aided project and the complementary training activities, have indicated the need for extending the scope of this project to other States. An action plan for that is under preparation.

(10) Centres of Continuing Education for School Teachers : which are run in collaboration with State Governments, are included in our important proposals for the Sixth Plan period, during which these centres are proposed to be expanded from 97 to 140 in a phased manner.

(11) Regional Education Centre for North-Eastern Region : Specific institutional arrangements for catering to the educational needs of the States and Union Territories of the North-Eastern Region, where adequate infrastructure for educational development are not yet fully developed, are proposed to be made to fulfil a felt need.

(12) Direct and Distant Learning Techniques : Direct and distant learning techniques for helping the process of mass education are also proposed to be developed in our programmes of educational technology.

(13) Broadcasts and Telecasts Programmes in the Indian Satellite : In the context of the likelihood of an Indian satellite being placed in the orbit, efforts to develop programmes for educational broadcasts and telecasts will receive increased attention.

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Early Childhood Education

Pre-school education has so far received inadequate attention although its importance in the development of the child, promoting motivation for schooling and laying the basic foundation for more formal learning, is well recognised. The establishment of

Child Study Unit represents, in a way, the significance that the Council attaches to the pre-school education. 1979 being the International Year of the Child (IYC) the Child Study Unit focussed its attention mainly on the programmes of the IYC.

The various programmes which were implemented are briefly described below.

(i) Regional Training Programmes : Five regional training programmes in early childhood education, each of two-weeks duration, were held at Bhopal, Bhubaneswar, Baroda, Chandigarh and Gandhi Gram. The objective was to focus attention on the role of the teacher in fostering the child's overall development. The participants of the programme included teacher educators from pre-primary and primary training institutions, heads of pre-primary and primary schools and staff of the SCERTs and SIEs.

(ii) Low Cost/Simple Play Material Workshops for Teachers : For Workshops each of one week's duration on low cost/simple play materials were organised at Jodhpur, Shillong, Srinagar and Trivandrum. The objective of the workshop was to train teachers to develop out of local waste materials, toys and educational equipment for the pre-school and the early primary school child. The participants of the programme were pre-school and primary school teachers, Balwadi and Anganwadi workers and their supervisors.

(iii) Manual on Child-to-Child Programme : A primary teachers' manual for child-to-child activities called "How to achieve better health" was finalised. The manual provides relevant information as well as guidelines to the teacher to develop desirable habits and skills in primary school children and enable them to conduct child-to-child activities. It has been published (March, 1980) by the National Institute of Public Cooperation and Child Development on behalf of the Department of Social Welfare on whose request the Ministry of Education got it developed through the NCERT.

(iv) NCERT's Participation in the National Seminar on IYC: The NCERT faculty participated in the National Seminar on the International Year of the Child, organised by the Department of Social Welfare, Government of India, in co-operation with the National Institute of Public Co-operation and Child Development. The semi-

nar aimed at evolving effective plans for IYC and their management; and implementation. A set of materials developed by the Children's Media Laboratory, NCERT, was distributed to the two hundred participants.

(v) Toy-making Competitions : This was one of the major programmes of the IYC focussed on making learning an enjoyable process, by encouraging teachers to take initiative in using locally available cheap or waste materials for toy making. The Child Study Unit of the NCERT organized national and State level competitions in toy-making for pre-school and primary school teachers. The State level competitions were organised by the Field Offices of the NCERT during November, 1979 to January, 1980. First, second and third prizes of the values of Rs. 500/-, Rs. 300/- and Rs. 200/- respectively, along with four consolation prizes of the value of Rs. 100/- each, were awarded in each of the sixteen States/Union Territories of Andhra Pradesh, Chandigarh, Delhi, Goa, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, Punjab, Chandigarh, Rajasthan, Tripura, Uttar Pradesh and West Bengal.

A three-day meet of the State level first-prize winners was organized from 10th to 12th March, 1980 in the NCERT Campus, New Delhi. Shri B. Shankaranand, Union Minister for Education, distributed the prizes and certificates to the participants. The exhibition of the prize winning toys was kept open throughout the week.

(vi) School Readiness Kit : In pursuance of the recommendations of the National Plan of Action for IYC, a School Readiness Kit has been developed. The kit gives suggestions on how to organize six week pre-school education for those children who enter Class I without having had any pre-school education. The following materials are now ready :

- (a) Sequential Thinking Cards
- (b) School Readiness Charts
- (c) Colour Discrimination Cards
- (d) Five pamphlets in English and Hindi on :
 - (i) First Six Weeks of Pre-school
 - (ii) Language Development
 - (iii) Creative Activities

- (iv) Specific Activities
- (v) Songs, Games and Riddles.

A slide-cum-tape programme has also been developed on the activities in the nursery school.

(vii) National Seminar in Child Development and Early Childhood Education : The seminar was organised in March 1980 at the NCERT. Twenty-nine persons from all over the country participated in the seminar in addition to members of the faculty of the Child Study Unit.

(viii) International Training Programme for Teachers in Early Childhood Education : Under the United Nations Development Programmes a group of 10 teachers from Afghanistan, 5 teachers from Bhutan and 1 teacher from Maldives came to NCERT for training in early childhood education. The training course lasted for 3 months for teachers from Afghanistan and for one month for others. The organization of these training courses has provided the Unit with experience which it can utilize for organizing similar training for teachers from other centres of the region.

(ix) International Training Programme Organised Abroad : On request from the Government, the Child Study Unit sent experts to Maldives to advise and assist on the implementation of Pre-school programmes. In order to ensure that innovative practices had lasting effect, one teacher from Maldives was given three months' training in pre-school education at NCERT. This was followed up by sending, with the support given by the Ministry of External Affairs, materials such as children's literature, films and toys.

(x) Programme of Children's Media Laboratory (CML) : With the assistance of the UNICEF the Council has set up a Children's Media Laboratory (CML), the objective being to experiment with and develop a variety of media for the education and entertainment of the pre-school child. Some of the activities undertaken during the year are briefly described.

- (a) *Educational Play Materials* : The aim of the project was to demonstrate how learning can take place effectively by using folk toys and other inexpensive equipment which are locally available. The project had four phases : to conduct a syste-

matic survey of the existing toys and games that are available in the State; exploration of the educational potential of the toys and to develop manuals based on toys for teachers; suggest the lines on which toys need improvement; and to devise new toys out of the locally available materials. Projects have been completed in Karnataka, Tamil Nadu, Bihar and Gujarat, Madhya Pradesh, Andhra Pradesh, Jammu and Kashmir and the north eastern States of Manipur and Tripura. The Teacher's manuals are ready for Karnataka, Tamil Nadu and Gujarat.

(b) *Colour and Form Books* : In addition to the 10 picture books which had been prepared under CML and were distributed in the National Seminar on the International Year of the Child, 10 colour and form books have also been developed. The aim of these books is to acquaint the child with the concepts of colour and for using examples from the child's environment. The materials developed include book' such as :

- (i) What is Green,
- (ii) What is Red,
- (iii) What is Blue,
- (iv) What is Yellow,
- (v) What is White,
- (vi) What is Black,
- (vii) What is a Triangle,
- (viii) What is a Circle,
- (ix) What is a Square,
- (x) What is a Cylinder.

(c) *Picture Story Books* : A ten-day writers' workshop was organized in order to develop another set of picture books for young children in Hindi. Nine scripts were selected for printing. The scripts have been illustrated and are now ready for printing.

(d) *Games of Children* : A collection of games of young children has been made. These games are categorized into mother-infant games; games of pre-school children; and games of primary school children. Art work for these is complete and are being processed for printing.

- (e) *Radio Programmes for Young Children* : Radio programmes for young children, being broadcast in Hindi, have been monitored in Delhi, Patna and Simla. The reports are complete and have been sent to the AIR for necessary action. The work on the development of radio prototypes is also in progress. Some games, songs and stories suitable for young children, have been recorded.
- (f) *Study Visits Scheme* : This is a continuing scheme to enable teachers and teacher-educators to make an indepth and on-the-spot study of special projects in early childhood education. Five fellowships were granted during 1979-80 for this purpose. The reports submitted by the awardees of previous years are ready.

4

Universalisation of Elementary Education

The poverty of parents, compelling them to use children's labour, has been one of the major reasons why the constitutional directive of providing free, compulsory and universal education for children up to the age of 14 has remained unrealized,

although, in the last 30 years, educational facilities have become available within easy reach of most of the people. Even those who enrol themselves find it difficult to stay in the system for the full period of compulsory education. New strategies of providing education to the unenrolled and those who prematurely withdraw from the system are being considered and advocated.

Non-formal Education Approach : The National Council of Educational Research and Training has been experimenting with approaches which aim at taking education to children rather than compelling them to come to the formal system. A variety of programmes of non-formal education is being experimented with. The approach and the strategy adopted is that of attempting a convergence of full time and part-time education so that a child may, if he so desires, re-enter the formal system of education after having completed a specific period of non-formal education. While the curriculum for non-formal education is being based on the principles of relevance, flexibility and local specificity, basic minimum skills of literacy, numeracy and inculcation of social and civic values are the objectives.

The responsibility of implementing non-formal education as an alternative strategy for universalization of elementary education is essentially that of the States. The role of the NCERT is primarily that of providing academic support and technical guidance in implementing this programme. An expert Committee set up by the NCERT identified for the Council the role it should play in non-formal education. Since any worth while advice can be given only on the basis of extensive experimental and developmental work which can provide the directions on which the programme should be implemented, the Council has been, as in previous years, making systematic effort in many directions.

Non-formal Education Centres under RCEs and Field Units : As a part of its experimental net-work, the NCERT has established about 200 non-formal education centres. The Regional Colleges of Education and the Field Units have been entrusted with this work. The main purpose in establishing these centres is to provide experiences which can help in a wider multiplication of the non-formal education programme in the States. New models, materials and ideas, along with need-based, local specific instructional materials are being developed. In the programme of the non-formal education

centres, apart from literacy and the usual three R's, the dimensions that are kept in view, are health, vocation, physical and social environment and social awareness. A curriculum, teachers' guide, training manuals and primers have already been brought out. A book on mathematics is under print. These materials are available in Assamese, Bengali, English, Hindi, Oriya, Telugu and Urdu. An enlarged version of 19 illustrations contained in the guide book for teachers are now being brought out as charts for display and instruction in the non-formal education centres.

A conference on non-formal education was organized in 1979 for the exchange of experiences and development of ideas for the formulation of a more effective programme. A training programme for key functionaries of non-formal education programme of Bihar was organised in September, 1979.

Projects assisted by UNICEF—CAPE, PCDC : As an attempt to develop meaningful approach and provide experiences helpful for universalization of education, the NCERT has been implementing, with the assistance of UNICEF, three projects which have direct implications for the programme. These include Comprehensive Access to Primary Education, Primary Curriculum Renewal and Development Activities in Community Education and participation. It is expected that these projects would provide experiences which will ultimately help the States in extending on a wider basis, the programme of non-formal education.

Since they are being implemented in collaboration with the States and the functionaries of such State level institutions as the State Institutes of Education, teacher education institutions etc., these projects are creating a band of competent workers who can not only implement the programme in the wider phase but also would be in a position to train other educational functionaries. The main thrusts of these projects is discussed below.

Comprehensive Access to Primary Education (CAPE) : The approach, methodology and curriculum being experimented with under the CAPE project mark a revolutionary departure from the existing system. The learning materials being developed for non-formal education are not discipline-based, but on real life situations which are meaningful to the learner. These materials are in the form of episodes/experiences, problems and activities focusing on specific

programme in the learner's environment. Basically, the project aims at the development of relevance-based learning materials in sufficient quantity and variety for the out-of-school children of the age group 9-14, developing strategies for decentralized curriculum development on mass scale, establishment of a net work of non-formal learning centres, and setting up of evaluation and accreditation services for learners to encourage them to enrol in the non-formal centres.

In the first phase the non-formal education centres are being opened and attached to elementary teacher training institutions. With the help of the faculty of these institutions, the prospective student-teachers and in some cases teachers in service are enabled to develop learning materials on a variety of locally specific problems. Apart from providing learning materials, this mode is expected to develop among teachers the competence to teach out-of-school children in an unstructured situation.

Twenty-four States and Union Territories have shown interest in the project. Till December, 1979, 12 States were able to take up the first phase which involved training of teacher educators of elementary teacher training institutions and training of the staff of the Regional Decentralized Resource Centres. (RDRC)

The Central Resource Centre (CRC) at the NCERT organised four workshops in which 122 members of RDRC teams were trained. In addition 614 principals/resource persons and 2622 teacher-educators were trained. The following table gives the statewise break up :

<i>States/Union Territory</i>	<i>Number Trained</i>	
	<i>Principals/Resource Persons</i>	<i>Teacher Educators</i>
Andhra Pradesh	12	53
Assam	22	66
Bihar	43	179
Karnataka	67	244
Madhya Pradesh	48	188
Maharashtra	146	836
Orissa	68	155
Tamil Nadu	74	288
Uttar Pradesh	128	550
Delhi	1	26
Goa, Daman & Diu	3	25
Mizoram	2	12
Total	614	2622

In the workshops organised for teacher educators draft learning capsules were developed by the participants. A total of 2662 draft learning capsules have been developed as indicated in the table given below :

<i>State/Union Territory</i>	<i>No. of Capsules Developed</i>
Andhra Pradesh	50
Assam	65
Bihar	180
Karnataka	250
Madhya Pradesh	100
Maharashtra	940
Orissa	150
Tamil Nadu	300
Uttar Pradesh	590
Delhi	25
Mizoram	12
Total	2662

PRIMARY EDUCATION CURRICULUM RENEWAL AND COMMUNITY PARTICIPATION :

The two projects are innovative in nature and have significant implications for curriculum development both for formal and non-formal systems of education. Through action research, these projects attempt to determine the relevant curriculum and instructional materials for the primary stage of education and the education of the community.

These projects were started in 1975-76 in 13 States and 2 Union Territories viz., Andhra Pradesh, Assam, Bihar, Gujarat, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh, Delhi, Mizoram. In the pilot phase, the projects were undertaken in 30 schools and 2 community centres in each of the States/Union Territories. In 1979-80 these projects have been further expanded in the above areas. While the PECR is being implemented in 100 more schools, DACEP is being implemented in some more community centres.

The States of Haryana, J & K, Meghalaya, Manipur, Nagaland, Punjab, Sikkim, West Bengal and Union Territories of Andaman & Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Goa, Daman & Diu also took formal decisions to join the project.

Minimum Learning Continuum (MLC) : A major thrust of the Primary Education Curriculum Renewal (PECR) was to reduce the load of unnecessary information and give due weight to competencies, skills, values and attitudes integrally related in playing one's role effectively in life. After a good deal of deliberations, try-out and refinement, a list of competencies in healthy living, artistic and creative expression, socially useful productive work (SUPW), environmental studies, computation (mathematics) and communication (language) were identified. They were then reduced to the *most essential ones* (minimum) to be *learned with mastery* (learning) and *graded in a sequence* (continuum) : This Minimum Learning Continuum (MLC) has been published. The MLC is likely to provide guidelines to curriculum framers and authors of instructional materials and some states have used the MLC for revising their syllabi for primary classes.

In addition to what is stated above, the other work done under the project included the following :

(a) *Brochure entitled 'Using Environment as a Basis for Meaningful Learning in Primary Education'* : The brochure suggests a number of activities concerning immediate neighbourhood and environment, each activity resulting in various learning outcomes in the field of language, mathematics, and general education.

(b) *Brochure entitled Survey as a Strategy for Curriculum Development* : The goal of the projects on Primary Education Curriculum Renewal (PECR) and Developmental Activities in Community Education and Participation (DACEP) is to develop need-based, relevant and local-specific programmes for communities representing major socio-economic, cultural and geographical variations. Since detailed information about socio-economic, cultural, geographical and educational characteristics of the concerned communities is required, the following survey schedules have been developed ;

School Information Schedule
Household Schedule

Village Schedule

Schedule of School Curricular Activities, and
Examinations (only common features as prescribed)

Schedule regarding School Activities

Pupil's Promotion Register

Analysis and Consolidation Sheets.

An Orientation programme of the project coordinators in the use of these tools was also organised in April, 1980.

(c) *Development of tools for Evaluation of Instructional Materials for Different Schools Subjects* : Tools for the evaluation of instructional materials in various school subjects (mathematics, environmental studies, languages, socially useful productive work, creative expression and healthy living) have been developed. These tools will be used not only for evaluation of the instructional materials already developed, or the materials to be prepared in future, but will also provide guidelines to the authors of the instructional materials.

(d) *National Conference on Primary Education Reform* : A national conference on Primary Education Reform was organised in Udaipur in December, 1979. It was attended by 70 delegates from the Union Ministry of Education, Education Secretaries of the States, Directors of Education; Directors of SIEs/SCERTs, faculty of the NCERT and the representatives of the UNICEF. The conference reviewed, among other things, the progress achieved in implementing the UNICEF-aided projects and indicated the directions on which the extension of these projects require to be undertaken.

(e) *Consultancy Services* : Consultancy services in development of instructional materials were provided to various SIEs/SCERTs which are conducting the projects. Consultancy services were also provided to the States/Union Territories for launching these projects.

(f) *Case Studies of the Community Centres for Non-Formal Education and Community Development* : Under the Project on Developmental Activities in Community Education and Participation (Project-3), participating States have developed community centres with the help of the concerned State Primary Curriculum Development Centres (SPCDCs). Case studies of two centres in Rohania in the Banswara area of Rajasthan, and Kanha in Himachal Pradesh, were undertaken. These studies are indicative of the progress of community development programmes of the centres.

(g) *Development of Instructional Materials* : The curricula and instructional materials for the project schools/communities were developed on the basis of socio-economic and educational survey of the villages in which the project schools are located. By the end of September, 1979, 374 textbooks, teachers' guides, workbooks, vocabulary materials and other guidance material had been developed in participating States and the Union Territories.

(h) *Training Classes for Community Workers* : Under DACEP, training courses in work experience etc. were organized from time to time for preparation of utility items like soap, chalk, candles, fruit and vegetable preservation, preparation of jams and squashes, papad making, making of agarbattis, leaf work, furniture making, weaving, embroidery work etc.

(i) *Development of Self-Learning Materials* : Under the DACEP project, self-learning materials that can be used by learners and the community workers who work as instructors in the centre are being developed. These activities include : vegetable and fruit preservation, preparations from fruits and vegetable, knitting, repairing of sewing machines, spinning and weaving, art of cooking, dry cleaning, health care of children, nutrition, poultry and dairy farming, carpentry, etc.

In the area of universalization of elementary education, other Departments/Units also provided research and development support. For instance, the Tribal and Women's Education Units undertook activities specifically helpful for promoting education among the disadvantaged and girls. Similarly, the Educational and Vocational Guidance Unit investigated the handicaps of first generation learners. The programmes implemented by these and other Units are discussed separately.

5

Education of the Disadvantaged

The disadvantaged sections of society, especially the Scheduled Castes and Scheduled Tribes, are in search of an identity and their right place in the Indian Society. They have to be provided adequate help for enabling them to assume their apro-

priate role not only in educational development but also in social transformation and nation building. Considerable and sustained work needs to be undertaken for assisting these sections to achieve the educational status that the other segments of the population have already achieved.

The continuing inability to realize finally the target of universalisation of elementary education, even after 30 years of the constitutional directive, is partly to be attributed to the failure of the educational system to reach the disadvantaged sections of the society. The poor economic conditions of parents whose children have to assist them in earning a subsistence has been the major handicap for these communities to take benefit of educational facilities. The enrolment of these communities in the education system is low and not commensurate with their proportion in the total. What is more disturbing is that their dropout rates are also higher, adversely affecting their chances of using education as a means for upward economic and social mobility.

Being conscious of the various handicaps from which the weaker sections of the society suffer, the Council set up in June last year a separate Tribal Education Unit. The Unit is expected to make indepths study of the problems faced in promoting education among the disadvantaged and, in collaboration with competent individuals and institutions, develop appropriate programmes of research and development which will provide directions on which more intensive work would need to be done at the State level.

The scope of this Unit is being expanded so as to cover the study of the problems which affect Scheduled Castes' access to educational facilities.

A major highlight of the period was the organisation of a seminar of experts on the problems of tribal education. Apart from anthropologists, sociologists and educators, participants included Directors of the selected Tribal Research Institutes. The seminar has resulted in the emergence of priorities that need to be followed in designing research and development programmes.

Some of the important activities undertaken during the year are discussed below :

Preparation of Instructional Materials for Non-formal Education Centres in Tribal Areas : Production of instructional materials for non-formal education centres is an important task and has been taken up by various agencies in India but no attempt has been made to develop instructional materials specially for centres operating in tribal areas. This programme is, therefore, intended to prepare instructional materials for non-formal centres operating in tribal areas. The State of Orissa has agreed to the selection of a certain tribe on an experimental basis for further work on the project.

Analysis and Development of Curriculum for Tribal Students: The draft curriculum for Saora tribal students of Orissa has been prepared. Preparation of instructional materials for non-formal education centres in tribal areas is also in progress.

Preparation of Supplementary Reading Materials for Tribal Students : Tribal culture is rich in folk tales, folk songs, myths, proverbs etc. An effort has been made by the Tribal Education to collect this literature and use it in supplementary readers proposed to be prepared for students for the area.

Training : In view of the fact that the requirements of tribal life are different from those of non-tribals, a programme was taken up to develop a curriculum which would reflect the values of tribal life and culture. In order to orientate teachers, a syllabus for the training of teachers was developed.

Orientation Course for District Education Officers from Tribal Areas : The orientation course was intended to provide orientation to District Education Officers from tribal areas in tribal life and culture as well as in various educational problems. This two-week course organised in September, 1979, was attended by 22 DEOs from the States of Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Rajasthan, Tamil Nadu and Uttar Pradesh.

Studies and Investigations : The Unit took up the following studies :

- Educational Development of Lahaul and Spiti and Kinnaur districts of Himachal Pradesh. The cyclostyled report was prepared and distributed.

- A research report on Hostel Facilities for Scheduled Castes was printed and published. Another research report on Hostel Facilities for Scheduled Tribes is under print.
- A Study of Factors impeding Universalization of Elementary Education in Tribal areas is underway.
- A Study of Methods, Processes and Practices of Non-formal Education Programmes for Tribal Students is in progress.
- A Study of Educational Opportunities to Tribal Students is also in progress.
- A review of all the researches made in tribal education at post-graduate, doctorate and institutional levels is being made.
- It is also proposed to support research by other organisations.

The NCERT also completed a study on "Equalisation of Educational Opportunities for Scheduled Castes and Scheduled Tribes", which has been published. The study indicates, among other things, the disparity that exists between these groups and other population segments in the matter of taking benefit from educational facilities.

Apart from paying special attention to the problems of education of the disadvantaged, the Council has taken a number of other steps within its own sphere to give a fillip to the education of the Scheduled Castes and Scheduled Tribes. These include :

(a) A special SC/ST Cell has been established in the Council Secretariat for taking action on the issues relating to Scheduled Castes and Scheduled Tribes.

(b) A special quota for Scheduled Castes and Scheduled Tribes for admission to the courses in Regional Colleges of Education of the NCERT stands allocated. Similarly, reservations are being secured for students of these groups in the Diploma Course on Educational and Vocational Guidance.

(c) A decision has already been taken to the effect that new Continuing Education Centres may be opened in areas predominantly inhabited by Scheduled Castes and Scheduled Tribes.

6

Curriculum and Textbook Development

In the NCERT document—*Curriculum for the Ten Year School: A framework*—the Council had projected the aspirations of the country in improving school education in pursuance of the 1968 policy resolution of the Government of India. As a

pivot of the total process of education, curriculum is endowed with the latent potential for improving and accelerating growth along the directions and goals the present cherishes for the future. The realization of this concept has formed the basis for NCERT's curriculum development ventures to be comprehensive by building into its framework components for cognitive, affective and psycho-motor growth of children. Ensuring a balance between its various elements and making it progressive, pragmatic, realistic and need-based is yet another concern of the Council's efforts in curriculum development.

Curriculum and textbook development is one of the major functions of many of the departments of the Council. Their activities in this area include analysis of curricula obtaining in States and other countries, undertaking of research, development of curricula and materials, preparation and evaluation of textbooks, teachers' guide books, textual and supplementary readers and so on. In the last twenty years, since the Council was set up, these departments have contributed significantly to the updating and upgrading of curricula and making them more relevant to the needs of the country. The curriculum development effort of the departments is not confined only to the preparation of syllabi but also encompasses a whole package of activities. These include curriculum development, preparation of textbooks and other instructional materials, their revision on the basis of tryout and feedback from the school systems, preparation of guidebooks for teachers, development of workbooks, training of teachers to familiarize them with new concepts and methodology to use the new materials and so on. The paragraphs that follow indicate the main activities of the departments in this area.

SCIENCE AND MATHEMATICS

The Department of Education in Science and Mathematics (DESM) has contributed considerably in accelerating the pace of science education in the country at the school level. Apart from curriculum development, the Department has been engaging in other ventures of equal importance. The programmes taken up by the department during the year under report are mentioned below.

(i) Textual Material Series under 10+2 Pattern : The manuscripts of the following new textbooks were developed during the year and are at various stages of publication.

<i>Title</i>	<i>for Class</i>
Mathematics for Primary Schools—Book II.	II
Mathematics for Primary Schools—Book III	III
Mathematics for Middle Schools—Book III, Part II	VIII
Science—Part II	X
Mathematics—Book V	XII

(ii) Revision of Existing Books : The NCERT textbooks on Mathematics (Class VI), Integrated Science (Class VI), Mathematics (Class IX), Physics (Class XII), Chemistry (Class XII) and Biology (Class XII) were revised by the subject teams in the Department during the year.

(iii) Evaluation : Experimental sheets and laboratory manual in Chemistry for Classes XI-XII have been developed. The cyclostyled copies of these are being used for a pilot tryout in 8 Schools of Delhi and the Demonstration School of R. C. E. Ajmer.

(iv) Production of New Instructional Materials : The following instructional materials, other than textbooks, were developed in the department and are at various stages of completion :

<i>Title</i>	<i>for Class</i>
Teacher's Guide to Learning Science through Environmental Studies (Textbook).	IV-V
Three Teacher's Guides to integrated Science textbooks (Learning Science Part I, II & III)	VI-VIII
Composite Kit for integrated Science	VI-VIII
Mathematics Book Teacher's Guide	IX
Test Items for Mathematics	IX
Test Items for Physics	XI
Teacher's Guide for Physics	XII
Teacher's Guide for Chemistry	XII
Test Items for Chemistry	XII
Teacher's Guide for Biology	XII
Test Items for Biology	XII
Experimental edition of Lab. Worksheets in Science (Physics, Chemistry and Biology)	X
Assessment (Guidelines for evaluation) sheets for teachers in Chemistry Practical	XI-XII

(v) Production of Supplementary Reading Materials : The title 'The Story of Glass' has been released recently. Three more supplementary readers for which the manuscripts were finalised earlier are at different stages of publication. One new manuscript on "Salts" was added to the project.

(vi) Extension Programmes : The National Science Exhibition organised by the Council at Bombay from November 12-19, 1979 was inaugurated by Honourable President of India, Shri Neelam Sanjiva Reddy. The display included 218 exhibits on the theme "Science & Village" prepared by school children.

The Science Exhibition at Teen Murti House, New Delhi, organised from November 14 to 20, 1979 was inaugurated by Honourable Vice-President of India, Shri M. Hidayatullah. The display exhibited a wide range of models on space research and use of solar energy. Outside agencies like the National Council of Science Museum, Max Mullar Bhavan, Indian Space Research Organisation, Indian Agriculture Research Institute, Indian Institute of Technology, Delhi, University of Delhi, the American Embassy, also collaborated with the NCERT in this annual event which as usual was a big draw.

The DESM also assisted in the organisation of all India level Science Exhibitions. Financial assistance was provided to State level Science Exhibitions (22) and Union Territory Exhibitions (9) with the Department coordinating this work. A Conference on New Trends in Science and Mathematics Education was organised in March, 1980. It was attended by Directors of State Institutes of Education/Science Education and other senior education officers. A workshop was organised in March, 1980 to prepare a manual on International System of Units, which was attended by scientists, engineers, educationists and by practising teachers.

(vii) Nutrition and Health Education Project : The UNICEF assisted pilot Scheme on Nutrition/Health Education and Environmental Sanitation in primary schools continued to receive Department's attention. It is being pursued through five regional centres which are concentrating on (a) the development of instructional packages in the regional language as well as in English; (b) training and tryout; (c) orientation of key Government personnel of the States and Union Territory of the region to disseminate information about the programme ;

(d) the training of science teacher-educators and injection of some important messages into the community have been taken up during the second phase which started in June 1979; and (e) development of Teacher's Handbook by States the on use of environmental and local resources for teaching primary science constitutes another part of the project.

The details about training and tryout of materials are indicated in the table below :

<i>Centre</i>	<i>Number of educators trained</i>	<i>Number of teachers trained</i>	<i>Number of tryout schools</i>
Coimbatore	35	5729	946
Jabalpur	31	500	500
Baroda	71	550	550
Calcutta	54	500	500
Ludhiana	14	150	150
Total	205	7429	2646

The Department also coordinates the distribution of UNICEF supplies. Materials were supplied to 44 teacher-training schools and 30 community centres and 15 State Institutes of Education. Equipment for project 4 and 5 have also started arriving at the ports. The value of shipments received at the ports during the current financial year is 5,58,893.43 U.S. Dollars.

(viii) Environmental Studies Project : For the training of in-service teacher education personnel in environmental studies for primary school, a pilot workshop was held at NCERT in December 1978; the purpose was to train resource persons for the four regional workshops, which were later held from January to June, 1979, at Coimbatore (Southern Region), Mirza, Assam, (Eastern Region). Pune, (Western Region) and Srinagar, J & K (Northern Region). About 80 participants from different States took part in these workshops. British Council made an expert available for help in the project.

(ix) Environmental Education Pilot Project—Experimental implementation of modules developed in an UNESCO/NCERT workshop : An orientation programme for State level co-ordinators was held in July, 1979. Four State level orientation-cum-workshops were organised by these co-ordinators for teachers and are under

tryout. A UNESCO module on 'Descriptive Statistics' was also prepared for the secondary school pupils/teachers.

(x) Programme for the International Year of the Child : Three main tasks were taken up, under the pilot scheme on Nutrition/Health Education and environmental Sanitation, for implementation during the period June to December, 1979, in the context of the International Year of the Child. These were :

- (a) All the Science teacher-educators in the States of Tamil Nadu, Madhya Pradesh, Gujarat, West Bengal and Punjab were oriented on Nutrition, Health Education and Environmental Sanitation.
- (b) A book entitled "How to achieve better Health", has been developed.
- (c) A workshop was organised on motivational programme on Health and Hygiene to develop a Question Bank for Quiz Competition for children of the age group 10 to 14 years in March, 1980.

SOCIAL SCIENCES & HUMANITIES

Social sciences and humanities taken together from an area the content of which has always been a great factor in social change through the development of values and attitudes in young learners at an impressionable age. The Department of Education in Social Sciences and Humanities (DESSH), which shoulders this challenging task, is another major curriculum development department of the Council.

It is primarily concerned with bringing about qualitative improvement in the teaching of Social Sciences and Humanities. In Social Sciences it deals with History, Geography, Civics, Citizenship Education, Political Science, Economics, Sociology, Social Studies as an integrated subject, and Environmental Studies. In Humanities, it concerns itself with Hindi as mother tongue and as a second language, Sanskrit and English. In addition, it has worked in the areas of Yoga and Moral Education. Some of the important activities of the Department in the year 1979-80 are discussed below.

Curriculum Development : The Department has already done basic work of developing curriculum for the new 10+2 pattern of education. During 1979-80 it completed one important project of developing 'Curriculum in Productivity Education'. In collaboration with the National Productivity Council of India, a workshop was organized to consider the textual materials and the general framework which the Department had developed with the purpose of promoting among school students consciousness of the importance of upgrading productivity in various facets of personal and community life.

(ii) Preparation of Textbooks : During the year, the Department finalised for publication the manuscripts of the following textbooks :

<i>Subject</i>	<i>Class</i>
Arun Bharati Part II—A textbook in Hindi for Arunachal Pradesh.	II
Bal Bharati Part IV—A textbook in Hindi for Kendriya Vidyalaya Sangathan (KVS).	IV
Read for Pleasure Book I—A Supplementary Reader in English for KVS.	
Swasti Part I—A Sanskrit Textbook for KVS.	V
Read for Pleasure Book II—A Supplementary Reader in English for KVS.	
Swasti Part II—A Sanskrit Textbook for KVS.	VI
Read for Pleasure Book III—A Supplementary Reader in English for KVS.	
Swasti Part III—A Textbook in Sanskrit for KVS.	VII
Independent India—Achievements and Challenges—A Civics textbook for KVS (printed along with History textbook).	VIII
Lands and Peoples Part III—A Geography textbook for KVS.	VIII
Swasti Part IV—A Sanskrit textbook for KVS.	
Fourth Step to English—A Textbook for the B Course of the Central Board of Secondary Education.	IX
Fourth Step to English—A Supplementary Reader for CBSE.	
Vyakaran Saurabham—A Sanskrit textbook for CBSE.	XI-XII
Problems of Indian Society—A textbook in Sociology (Mimeographed)	XII
A Handbook for Project work in Sociology (Mimeographed for tryout)	

Some Supplementary Readers in English were also prepared in collaboration with the Regional Colleges of Education, Bhopal and Mysore.

(iii) Other Instructional Materials : The other materials prepared included workbooks, pictorial panels etc. Details are given below :

A Workbook for Class II—Arun Bharati Part II, which is meant for Arunachal Pradesh, and Fourth Step to English textbook for the CBSE.

Pictorial panels on the History of Freedom Movement—which is being developed in collaboration with the Department of Teaching Aids.

The Department worked with the States like Delhi, Haryana and Madhya Pradesh for the development of instructional materials for adult learners and instructors of adult education centres.

(iv) Orientation : The orientation programmes which were organized during the year included :

for about 50 history teachers at Aurangabad for a period of two weeks with the collaboration of History experts drawn from the Universities of Maharashtra, Pune and Bombay;

Orientation and training of Hindi teachers of ten days' duration at the request of the Govt. of Arunachal Pradesh;

of six days duration for Adult Education Officers held at Indore at the request of the Govt. of Madhya Pradesh;

Correspondence-cum-Contact Programme undertaken jointly by DESSH and the Regional College of Education, Ajmer, in which about 20 teachers from Haryana were oriented in History for Classes IX and X.

orientation programme for teacher-educators in the use of language laboratory with special reference to the preparation of software organised at Pune, for a period of eight days for 20 teacher-educators;

a month-long intensive course in English organised for the ministerial staff of the NIE; and

providing Apprenticeship facilities for three students of Birla Institute of Technology and Science, Pilani.

WOMENS' EDUCATION

The Womens' Education Unit has exercised its potential to develop the first drafts of disciplinewise teachers' handbooks on the 'Status of Women'. These handbooks were prepared in languages, Social Sciences, Mathematics and Sciences and have to be edited and finalized for the use of teachers of Primary, Middle, Secondary and Higher Secondary schools. These handbooks aim at elimination of any discriminatory reference based on sex.

The NCERT textbooks were scanned from the point of view of 'Reflections on the Status of Women' and ideas projected in the 'Identified Values Commensurate with Status of Women'.

During the year under report, the Unit prepared some exhibits in collaboration with the Department of Teaching Aids for being exhibited at the mid-Decennial Assessment Conference in which it participated.

VOCATIONALIZATION OF EDUCATION AND SOCIALLY USEFUL PRODUCTIVE WORK

A system of education which does not equip the country's youth for gainful employment and participate meaningfully in developmental tasks would largely be irrelevant. Vocationalisation of education at the +2 stage aims at providing students with skills that they can use. Along with participation in socially useful productive work, vocationalization ensures a smooth transition of the student from the world of education to that of work.

(i) **Preparation and Revision of Curricula** : Of the six States which started vocational courses, Karnataka happens to be one of the earliest. One batch of students in 21 vocational subjects has already passed out and is in the employment market. During the first two years of implementation of the scheme, several weaknesses were found in the curricula and required revision. Two workshops were organised towards this end and 12 of the 21 syllabuses were revised.

The Socially Useful Productive Work Unit has prepared a supplement to the original document entitled "SUPW Curriculum", as the original document was considered inadequate.

(ii) **Orientation Programmes** : Since the concept of vocationalization is new, it seems to mean many things to many persons. To impress upon the teaching community the purpose behind vocationalisation, the underlying concepts, organization of the courses, methods of instruction and evaluation system, orientation programmes ranging from 3 to 5 days were conducted in Tamil Nadu, Karnataka, Gujarat and Maharashtra. In all about 600 teachers, 100 headmasters and 30 officers of the State Departments were oriented.

(iii) **Short-term Teacher Training Programme** : The major focus in the training programmes was on the analysis of the curriculum and their relevance to the regions where the schools are located, organization of practical work in and outside the schools, methods of instruction and preparation of instructional materials.

Vocationalization scheme does not envisage heavy investment on equipping the vocational schools on the lines of Polytechnics or ITIs. The major recommendation is that the schools which have selected vocational courses should fully utilise the community resources while providing some facilities within themselves for initial practical work. It is envisaged that the instructional materials specially suited to these courses will be prepared by the teachers and distributed to students in cyclostyled forms at least for some years to come. The methods of evaluation also cannot follow the traditional annual examination pattern; the evaluation system has to be internal and continuous; the only provision for external examination, if at all necessary, will come at the end of the course. With a view to weaving these aspects into the teaching scheme, the NCERT, organised 10 short-term teacher training programmes during the period—6 in Tamil Nadu and 4 in Maharashtra, and trained 520 teachers in the areas of Agriculture, Commerce, Technology, Home Science and Health.

(iv) **Studies** : Till now five States and the Union Territory of Delhi have implemented the scheme for vocationalisation of education at the +2 stage. To study the methods of implementation, their strengths and shortcomings, and to suggest ways and means of improving the situation, studies were conducted in the States of Karnataka, West Bengal and Gujarat, and their reports were forward-

ded to the states with the request that they may take necessary steps for better implementation of the programme. The States have taken several measures to ensure better instruction and training.

RESEARCH AND EVALUATION OF TEXTBOOKS

Apart from the preparation and tryout of textbooks, specifically developed in relation to the requirements of changed curricula, the Council has been evaluating textbooks and also undertaking research which will promote improvements in textbooks brought out by other agencies. Some of the actions undertaken during the year are listed below :

(i) **Evaluation of Textbooks :** Hindi textbooks of Classes I, II and VI developed by the NCERT are being tried out in 12 schools located in Delhi, Rajasthan, Andhra Pradesh, Madhya Pradesh, Goa, Karnataka and Bihar. The report of tryout of the textbooks for Class VI has already been prepared. The data for tryout for textbooks for Classes I and II has already been collected. Analysis and tabulation of the data in respect of textbook for Class II is being done. The report of tryout of Class I book also has already been prepared.

(ii) **Studies and Investigations :** The following studies have been undertaken :

(a) *Evolution of the Textbook and its Role in Former Education in the Context of Changing Society :* The study covers the entire period from ancient to modern with a view to tracing evolution of the textbook and identifying its role in the changing society in India. The textbooks of school stage alone are being considered in the study.

(b) *A study of the Comprehensibility in the language used in Science, Social Sciences and Language Textbooks at Primary Levels :* It is in progress.

(iii) **Monographs :** The following monographs on textbook comprehensibility have been developed :

Monograph 1 : *Towards a Model of Textbook Comprehensibility.*

Monograph 2 : *Annotated Bibliography on Comprehensibility of Language Used in Textbooks.*

Monograph 3 : *Analysis of trends towards the concept and Measurement of Language Comprehensibility.*

(iv) **Reports of Studies :** The following reports of the studies relating to preparation, evaluation, production, distribution and pricing of school textbooks, were completed during the year :

- Position of Nationalised textbook in India 1977-78 and 1978-79.
- Position regarding establishment of book bank in schools.
- Position regarding free/subsidised supply of textbooks, exercise/ note books and other items of stationery to the students.
- Textbooks in languages other than the official language of the state.

The report of the following studies are being finalized :

- Policy and procedures regarding periodical change of textbooks.
- Practices and procedures for development of nationalised textbooks in India.
- Procedures for distribution of nationalised textbooks in India.
- Procedures for pricing of school textbooks in different states.

(v) **Preparation of annotated Bibliography of Children's Literature in Hindi for Different School Stages :** For the purpose of preparation of annotated bibliography, tools and instructions for evaluators were developed and got printed. A workshop for evaluation of children's literature was organized wherein about 13,000 children's books were evaluated by the participants. The annotated bibliography of children's literature is being edited.

(vi) **National Prize Competition for Children's Literature :** The NCERT bi-annually conducts the National Prize Competition for Children's Literature for books for the children of the age group 5-8 and 9-15. Prizes are awarded to the authors of books/manuscripts which are of outstanding merit. In 1979-80, a symposium was organized along with the prize distribution function in January 1980. An exhibition of the children's books was also organized along with the Symposium in January 1980, in which publishers of Delhi took part.

CURRICULUM COORDINATION

In order to give special attention to problems of curriculum development and implementation in the country, the Council set up a Curriculum Group at the headquarters in June, 1979. Besides acting

as the Secretariat of the Curriculum Coordination Committee and the Advisory Committee on School Curriculum, the Curriculum Group has initiated research on some of the significant problems in the area of curriculum development and implementation. Its work is briefly reported below :

(i) **Research Studies :** An important study in which the Curriculum Group is currently engaged is the project on "Effective Use of School Curriculum". It is an experimental project aimed at studying the relative efficacy of a pupil development oriented model of curriculum use. In addition to two publications brought out last year on this project, three more publications have been brought out this year. The five publications which are to be used as source materials in the next phase of the study are :

- (i) Effective Use of School Curriculum—An Introduction.
- (ii) Educational Objectives at the Primary Stage—A Development Approach.
- (iii) Psychology of the Child and the Curriculum.
- (iv) Teaching-Learning Strategies for Pupil Development.
- (v) Teaching Skills for Effective Use of School Curriculum at the Primary Level.

Another important project funded by ERIC which the Curriculum Group has undertaken is "Comparison of Curriculum Load at the Secondary Level in different States". Concern at the sudden increase in the curriculum load has been expressed from various quarters—parents—students as well as teachers—and as such the findings of the study would have important implications for the school curriculum currently in vogue in our schools.

(ii) **Dissemination :** The Curriculum Group has set up a curriculum Resource Centre with the important purpose of making available to the curriculum workers necessary materials and information concerning the recent developments, trends and events in the field of school curriculum.

7

Population Education

Population explosion is a phenomenon of great complexity. Although many countries had been suffering from the unchecked growth of population very, little systematic effort was made to educate people about the adverse effects it has on the

quality of life. Ours is probably the first country to have formulated a State population policy as early as 1952. Since then this policy has undergone considerable change from time to time, with emphasis shifting from family planning to family welfare where family planning advice and services were but a small part of a total package of family health, welfare and social development.

The National Population Policy of 1976 identified the basic issue to be poverty and with a view to making a frontal attack on it the Minimum Needs Programme was initiated as an integral part of the development effort. It must, however, be recognised that the problem of population growth has reached such serious proportions as to require urgent steps. While education and economic development do bring about a drop in fertility rates, the gestation period involved is long. The very increase in population makes development slow and more difficult to achieve. The time factor is so pressing and population growth so formidable, that a direct assault upon this problem is to be taken up urgently and with a sense of national commitment.

Appreciating the role that population education can play in the success of the National Population Policy, it is essential to ensure that the younger generation does not grow up without adequate awareness of the population problem and a realisation of their national responsibility in this regard. Since population education is not culture-free area, and is essentially value-oriented, it is but natural that schools should play a vital role in the development of new values in the society so that the pace of social and economic development is accelerated.

Recognising the need for creating awareness among school children and developing among them appropriate attitudes toward the population problem, the Boards of Secondary Education recommended at their annual conference (September, 1978) that population education be reflected at all stages of school education and woven into the existing disciplines so as to develop appropriate understanding and attitudes. It was expected that population education would help students understand and appreciate the inter-relationships between population and development.

While it was against this background that the Population Education Unit in the Council was set up last year, the Council has been

conscious of the desirability of integrating population education in the curriculum. Over the years it has suggested approaches, developed syllabus and textual materials and generally ensured that the curriculum provides for an understanding on the part of students of the problems created by an unchecked population growth. The Unit undertook to prepare a comprehensive national population education project so that the message of population problems could be carried to each and every classroom and from there to every village and home. The work done by the Council during 1979-80 in this area is discussed in the following paragraphs.

Formulation of a National Population Education Project : This has been the most important activity undertaken during the year under review. For this purpose the following steps were adopted :

- Conducting a National Baseline Survey in Population Education.
- Holding of four Regional Workshops involving the States and Union Territories.
- Formulation of a National Population Education Project Document.
- Working out detailed State Population Project Proposals in collaboration with them.

National Baseline Survey in Population Education : The Department organised a national workshop to evolve criteria, guidelines and tools for undertaking baseline survey in all the States in India. Members of the Unit paid visits to different States in order to assist States in the collection and processing of the data at the State level. The data so collected from the States were processed and a report was written and sent to Unesco Regional Office for Education in Asia and Oceania, Bangkok.

Regional Workshops : The Unit organised four regional Workshops one each at the following places :

- State Institute of Education, Maharashtra, Pune.
- Teachers Training College, affiliated to the Rural Institute, Gandhigram.
- Department of Education, University of Punjab, Chandigarh.
- A.N. Sinha Institute of Social Sciences, Patna.

These workshops were organised to review the status of population education in the respective states, identify their difficulties and needs in implementing the programmes and help them in developing

State Population Education Project Proposals. All these workshops were attended by a Unesco expert from the Regional Office, Bangkok.

Formulation of the National Project Document : Factual information was collected and systematically processed before a comprehensive National Population Education Project Document was prepared. The project has now been approved and cleared by the Ministries of Education and Culture, Health and Family Welfare, Finance and the Planning Commission. The Population Education Project involves identification of themes on population education which can be incorporated in the formal and non-formal systems of education, development of textual and other instructional materials, training of teachers and other key personnel and monitoring and evaluation of the programmes.

Development of Detailed State Project Proposals : The National Population Education Project visualises the involvement of ten States in the first year of the project : Bihar, Chandigarh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu. Bulk of the expenditure involved in this project would be spent at the State levels.

Asian Regional Workshop on Alternative Structures and Approaches to Population Education : An eight-day workshop was jointly organised by the Unesco and the NCERT. Twelve countries viz. Afghanistan, Bangladesh, Fiji, India, Indonesia, Republic of Korea, Malaysia, Nepal, Papua New Guinea, the Philippines, Sri Lanka and Thailand, participated in the workshop.

Preparation of Audio-visual Materials in Population Education : This project was specifically undertaken to prepare filmstrips, and slides synchronized with taped commentary for use in the training colleges in the country. Materials have been developed under the following heads :

- Concepts of Population Education.
- Demographic concepts.
- Social and Economic consequences of population growth.
- Health and family life.
- Population Education programme for the rural teacher.

Publications : The Unit brought out a publication on "Population Education—A Conceptual Framework" which was the outcome of a project undertaken in collaboration with the UNESCO. The document is in the press.

8

Education of Teachers and other Personnel

The improvement of teacher education has been a major function of the NCERT. In order to carry out this task effectively the Department of Teacher Education at the Headquarters and the Regional Colleges of Education at Ajmer, Bhopal,

Bhubaneswar and Mysore have been concentrating their efforts mainly in the following directions :

- implementation of innovative programmes of pre-service and inservice education of teachers including extension work of the Centres of Continuing Education.
- preparation of curricula and instructional materials including implementation of Comprehensive Access to Primary Education (CAPE)
- research into the problems of education and teacher education.
- collaboration with State Governments to improve teacher education programmes.

The programmes and projects for the improvement of teacher education are being pursued on the basis of the recommendations of National Council for Teacher Education (NCTE) and its various Committees. NCTE is an apex body in the country in the area of teacher education and the Department of Teacher Education acts as its academic secretariat.

PRE-SERVICE COURSES IN REGIONAL COLLEGES

The Regional Colleges of Education have been organising pre-service training courses. The enrolment during 1979-80 in different University affiliated courses is given in the table below :

Enrolment in Regional Colleges of Education during 1979-80

Course	Ajmer	Bhopal	Bhubaneswar	Mysore
1. Msc. Ed.				
Physics	—	—	—	19
Chemistry	—	—	—	22
Mathematics	—	—	—	15
Life Sciences	—	—	20	—
2. M.Ed. Secondary	21	9	32	10
3. M.Ed. Elementary	—	10	—	—
4. B.Sc.Ed.	—	—	—	59
5. B.Ed. Science	122	73	100	109

6.	B.Ed. Commerce	48	40	20	—
7.	B.Ed. Secondary Arts	—	—	60	10
8.	B.Ed. (Agriculture)	13	—	—	—
9.	B.Ed. (Language)	154	80	—	—
10.	B.Ed. (Elementary)	—	44	18	—
11.	B.Ed. Summer School Correspondence-cum- Contact Programme	212	270	350	244
12.	Correspondence-cum- Contact Programme (Elementary)	92	—	—	—

In-Service Training Programmes :

The in-service training programmes organised by the colleges are indicated below for each college.

Regional College of Education, Ajmer : Workshops were organised on :

- Identification and Selection of different topics at the +2 stage in the chemistry curriculum for senior teacher of chemistry,
- Planning and preparation of instructional material for teaching mathematics to elementary classes,
- Instructional material in Mathematics for primary level —1-V,
- Research Designs,
- Micro-teaching,
- Educational Guidance,
- Preparation of mathematical games for pre-primary teachers and primary teachers,
- Teaching of Science through enquiry,
- Non-formal Education,
- Preparation of learning packages for secondary school teachers,
- Methods of teaching science,
- Finalisation of the Brochures on Physical Education,
- Final script of teacher's handbook in Social Sciences in relation to the status of women.

A working group meeting for the preparation of supplementary readers in English was also organised by the College.

Regional College of Education, Bhopal : The various Departments of the College organised in-service programmes which covered curriculum construction and preparation of instructional materials, teaching methodology, mass media and special subjects like early childhood education, science and technology and innovative practices. These programmes were organised either by the faculty of the College or in collaboration with other agencies. The activities organised by the College are indicated below :

By College Faculty

- Group meeting for correspondence lessons in Hindi,
- Training course for science teachers,
- Workshop on the development of instructional material for teaching science through the environmental approach,
- Three orientation courses in educational technology,
- Workshop on innovations in agriculture,
- Workshop on educational use of puppetry,
- Workshop for the preparation of book-keeping workbook for Class XII,
- Workshop for higher secondary school teacher-educators in creative methods of teaching,
- Two workshops on developing scripts for educational telecasts/ broadcasts (for Gwalior and Bilaspur regions),
- Orientation programme for primary school teacher-educators,
- Workshop for the development of teacher's guide in geography for Gujarat State,
- Workshop on activity methods of teaching,
- Enrichment course for English teachers of Gujarat State,
- Orientation programme for Urdu teachers of Maharashtra State.

In collaboration with other constituents of the Council and other agencies :

- Orientation course in micro-teaching for secondary school teacher-educators of the Western region,
- Workshop of teacher-educators in early childhood education,
- Mobile field operational workshop in science and technology,

- Training course for functionaries of National Adult Education Programme,
- Seminar on mathematics teaching,
- Workshop on designing and developing innovative science curriculum and instructional material,
- Seminar on preparation of teaching aids in general science,
- Conference on testing, measurement and evaluation,
- Orientation course for teachers of non-formal education centres in tribal areas,
- Training programme of college supervisors' for NAEP.

Regional College of Education, Bhubaneswar : The following in-service training programmes/workshops were organised by the College :

- Early childhood education for teacher-educators of the States of Bihar, Orissa, West Bengal and Meghalaya,
- Pedagogical theory courses for the B.Ed. and M.Ed. curriculum for teacher-educators of Orissa State,
- Organisation of internship and practical teaching programmes envisaged in secondary teachers education curriculum for teacher-educators of Orissa State,
- Teaching of English for high school teachers of Orissa State,
- Content enrichment courses in geography, history, civics, mathematics, physical sciences and life sciences for high school teachers of Andhra Pradesh,
- Preparation and utilisation of low cost visual aids for teacher-educators of primary and secondary level of Orissa, Bihar and West Bengal,
- Content enrichment courses in physical sciences and mathematics for Classes IX and X for secondary school teachers of the Andaman & Nicobar Islands,
- Training of teachers in SUPW for higher secondary school teachers of the Middle Andamans,
- Orientation in strategies for universalisation of Elementary Education to orient in teaching materials and orientation in action for Inspectors of SIE of primary school of the Andaman & Nicobar Islands,
- Contact phase of the correspondence-cum-contact programmes.

Regional College of Education, Mysore : The College organised the following training courses/conferences/seminars/workshops and orientation programmes :

- Training course in teaching specific units of the new curriculum in Physics, Chemistry, Mathematics, Biology for key personnel of Karnataka State;
- Conference on orientation in the internship programme for headmasters and teachers of Karnataka State;
- Seminar on primary science teaching for teachers and teacher-educators of Karnataka State;
- Conference on guidance and counselling for student-teachers of Karnataka State;
- Conference on ways and means of under-achievers for teachers and professors of Karnataka State;
- Conference on socially useful productive work, for Faculty of Agriculture and Demonstration Schools of Regional Colleges of Education of Karnataka State;
- Workshop on micro-teaching for teacher educators of Mysore State;
- Conference on Moral Education;
- Training course in effective use of school curriculum for teacher-educators of Andhra Pradesh including four faculty members of the SCERT;
- Training course in techniques of administration, supervision and management for Education Officers and Faculty of the DSERT, Tamil Nadu;
- Conference on effective working of the Continuing Education Centres for the Southern Region;
- Conference on effective working of the Continuing Education Centres for Honorary Directors of Mysore State;
- Orientation course in developing correspondence lessons for key personnel of Andhra Pradesh State;
- Workshop on evaluation for teachers of degree colleges of Tamil Nadu State;
- Workshop on preparation of textbooks and teachers' guides.

Department of Teacher Education : The Department undertook various programmes of improving teacher education programmes and provided active academic support to the various agencies pursuing his task through a number of programmes. These are discussed below :

(i) *Intensive Teacher Education Programme (ITEP) :* Under this programme the Department works with the States and universities for improving and enriching teacher education programme. The ITEP is being taken up at both the elementary and secondary levels. Presently, the main thrust of the programme is on implementation of the syllabus and the development of practical work as recommended by the National Council for Teacher Education (NCTE). The States of Andhra Pradesh, Madhya Pradesh and West Bengal were covered through the programme for revision of the B.Ed. Course. At the elementary level teacher education the programme was taken up in Andhra Pradesh, Jammu & Kashmir, Kerala, North Eastern Hill States and Tamil Nadu. In these States workshops/seminars were organised; subsequently course materials were developed and the procedure for their implementation has been discussed in conferences. Training courses for functionaries and resource persons constituted the next step.

(ii) *Improving Teaching Competence through Micro-Teaching Experimentation :* In collaboration with the State Council for Educational Research and Training, Haryana, the Department took up a project of training in-service teachers in micro-teaching. Their competencies were evaluated before and after training and a significant improvement was noticed.

(ii) *Training Courses :* Two training programmes in micro-teaching were organised, one at North Eastern Hill University, Nagaland Campus, for teacher-educators from the Eastern region and the other for secondary teacher-educators of the Western Region at Regional College of Education, Bhopal.

(iv) *Developmental Activities in Teacher Education :* In addition to pre-service and in-service training programmes for teachers and teacher-educators, Department of Teacher Education and the Regional Colleges of Education undertake research and development effort which has implications for the improvement of teacher preparation. Among some of the significant activities undertaken during the year the following deserve mention :

Department of Teacher Education

(i) Seminars/Case Studies

- Seminar on application of educational theory to classroom practices,
- Development of a syllabus for socially useful productive work,
- Case Studies of the "Indian Child",
- Evaluation of effectiveness of correspondence courses in Teacher Education,
- Development of a comprehensive programme for the training of college teachers,
- Workshops for development of syllabi on the lines recommended by the NCTE in the States of Orissa, Uttar Pradesh, Andhra Pradesh, Karnataka, Gujarat and Kerala.

(ii) Textbooks

The Department has undertaken the preparation of textbooks for both elementary and secondary teacher education. The textbooks are in line with the syllabi developed according to the recommendations of NCTE. The following books are under preparation.

(a) For elementary level teacher education :

Teacher and Education in the Emerging Indian Society.
Child Psychology.
Working with the Community.
Teaching of Science.
Teaching of Mathematics.
Teaching of Social Studies.
Handbook on Socially Useful Productive Work.

(b) For secondary level teacher education :

Teacher and Education in the Emerging Indian Society;
Educational Psychology.
Curriculum and Evaluation.
Teaching of Science.

Teaching of Mathematics.

Handbook on Socially Useful Productive Work.

Textbook on Core Teaching Skills.

Micro-teaching a Step in Learning to Teach.

- (iii) A series of five films on micro-teaching have been planned and the first one is under preparation in collaboration with the Department of Education, Indore University, Indore and the Department of Teaching Aids, NCERT.
- (iv) A teaching assessment battery, comprising general teaching competence scale, self assessment teaching schedule and pupil assessment schedule, has been developed.
- (v) Papers were invited from elementary, and secondary level teacher-educators on innovative ideas tried out by them. Eleven papers from the former and six from the latter were selected for awards. A national meet of award winners was held.

Regional Colleges of Education, Bhopal : The College faculty continued to participate in the developmental projects initiated during the last academic session (s) which included : Comprehensive Access to Primary Education; Hoshangabad Science Teaching project, Non-formal Education Project and National Adult Education Project.

Bhubaneswar : Besides taking active part in projects of CAPE, NAEP, Centres of Continuing Education, the faculty engaged in writing textbooks for graduate and undergraduate levels under different schemes including those of the Textbook Bureau of Government of Orissa.

With the collaboration of the Department of Education in Science and Mathematics, NCERT, the College took up development and revision of materials for the following textbooks :

Class III Mathematics;

Nutrition Education Materials for Middle and Secondary Level;
Class VI and IX Mathematics;

Class XII Physics, Chemistry and Biology (textbook revision);
Teachers' Guide for Class V; Learning Science Through the Environment (Environmental Studies), Class VI-VIII Learning Science;

Class X Mathematics, Class XII Physics, Chemistry and Biology, Text items for Class III Learning Science Through the Environment, Learning Science Part I, and Mathematics for Class VII, Science for Class IX-X.

It also participated in the development of low cost science equipment for Classes VI-VIII, IX and X, and XI-XII, and cooperated with the Centre for Educational Technology in developing a filmstrip on "Solar Eclipse".

Mysore : The College continued to work on "Integrated Rural Development Through Education" project, which covers 10 rural communities for their all round development through non-formal and formal education with 10 village level unemployed workers and 10 non-formal centres. The results are encouraging. The curriculum renewal work which was earlier lacking direction, unity and balance has been now considered on the social basis to meet the problems of modern living. Ground has been prepared for bringing the farmers and craftsmen to the College for training in innovative skills. The College is developing programmes like curriculum bank, concept-centred instructional materials, reading clinics, guidance services, micro-teaching laboratories, defectology programmes, computer assisted programmes, micro-films and micro-fische libraries, tape and video-tape units, distance learning and television teaching programmes. The College introduced an M.Ed. Course with specialisation in Elementary education and prepared a Supplementary Reader for Class VI as a part of project entrusted by the Central Schools.

Research in Teacher Education : The Department of Teacher Education and the Regional Colleges of Education completed a number of research projects. Others are nearing completion.

Completed :

(i) *Relative effectiveness of variations in micro-teaching components*, which was carried out in sixteen colleges of education with a sample of 330 student teachers.

(ii) *Effect of Classroom Behaviour Training (CBT) on classroom questioning behaviour* : Experimental material on classroom questioning behaviour was prepared. The training was carried out using the micro-teaching approach. The experiment was conducted in collaboration with C. R. College of Education, and the District Educational Officer, Rohtak.

(iii) A study of in-service Education Needs of Secondary Teacher-Educators.

(iv) A study of the Problems Bearing on Teacher Education in relation to the New Pattern of School Education.

(v) An Experimental study of the Different strategies of integration of Teaching Skills acquired by student teachers through the technique of micro-teaching. The study was conducted in 18 secondary teacher training institutions.

Studies in Progress :

A study of the Reasons for non-enforcement of conditions of affiliation laid down by the universities.

Innovative practices in elementary and secondary levels teacher education.

A study of social cohesion in elementary level teacher training institutions and their performance.

In the Regional College of Education, Mysore, the following ERIC Research projects were in various stages of progress :

Relationship between lesson kinetic structure and learning outcomes in school science.

Designing of prototype physical laboratory for higher secondary schools/junior colleges on the basis of indigenously available components, expertise and know-how.

Study of innovative practices prevalent in schools in the southern region.

Construction of multimedia curricular modules of basic concepts in secondary school Chemistry and comparison of their effectiveness with conventional methods.

An analysis of commercially produced technical literature for possible use in curriculum planning in the area of electricity and electronics under socially useful productive work and vocationalisation of education at the +2 stage.

Historical analysis of the work element in education in India.

Physics Resource Materials Vol. III.

Intellectual developmental levels of Piaget and their relationship to secondary science curricular content.

Developing and evaluating laboratory materials and curriculum with enquiry/discovery approaches in terms of cost benefit analysis.

Devising and implementing of a strategy for the development of accelerated reading with comprehension in English.

Programmed instructional material for teaching Biology in schools.

During the year under report the Department of Teacher Education and the Regional Colleges of Education have brought out a number of documents. While some of them have been printed, others were in cyclostyled form. Most of the documents are widely distributed for creating an awareness of the important areas in which teacher education is making progress. The significant publications brought out during the year are listed below :

Experimentation and Innovations in Secondary Schools.

Research in Classroom Vol. IV.
Teaching Assessment Battery (TAB)

A study of the problems bearing on teacher education in relation to the new pattern of school education.

An emprical study of the relative effectiveness of variations in micro-teaching components.

In-service education needs of secondary level teacher-educators.

Thoughts and experiments in secondary teacher education : award winning papers of seminar readings programme 1978-79.

Effect of classroom behaviour training (CBT) on classroom questioning of teacher.

} All printed

} Cyclostyled

Report of the Workshop on Elementary Teacher Education Curriculum (State Institute of Education, Srinagar).

Report of the Workshop on the Revision of Elementary Teacher Education Curriculum for Tamil Nadu.

Report of the Annual Conference of the Directors/Principals of the State Institute of Education, February, 1979.

Correspondence-cum-contact courses of elementary teacher-educators, 1974-78.

Report of the National Council for Teacher Education, 1973-78.

College teacher education programme.

Condition of recognition of Elementary Teacher Training Institutions prepared by the NCTE Committee in Elementary Teacher Education.

A Point of View in Teaching of Mathematics.

Project Environmental Material.

Non-formal Education Centres—Annual Report.

Hoshangabad Science Teaching Project; News Bulletin and Teaching Through Environment.

The NCERT (Department of Teacher Education) works as the secretariat of the National Council for Teacher Education (NCTE) and as such makes effort to see that the recommendations of this body are implemented effectively. During the year the following action was taken on the recommendations of the Council :

Implementation of Recommendations of NCTE :

Sixteen States have constituted the State Boards of Teacher Education. Two States and seven Union Territories have agreed in principle to accept NCTE as the accrediting agency for teacher training institutions of their State. A study team was appointed by the NCERT to assess the potentialities of the RCE's for the introduction of new teacher education courses.

Like other Departments, the *Educational Psychology Unit* undertakes research, development and extension work related to the psychological aspects of teaching-learning process at school level. During the year, the Unit organised the following training programmes :

(i) *Training Course in Administration of Psychological Tests and Interpretation of Test Scores* : An eight-day training course in the Administration of Psychological Tests and Interpretation of Test Scores was organised by the Educational Psychology Unit at NIE

Campus in March, 1980. It was attended by teacher educators, psychologists and guidance officers.

(ii) Orientation Course in Application of Behaviour Modification Techniques in School Setting for SIE-SCERTs Officers held at NCERT, New Delhi, in March, 1980 : Nineteen delegates from various SIEs and SCERTs participated in the orientation course.

The *Educational and Vocational Guidance Unit* organised a 9-month diploma course in educational and vocational guidance as an on-going programme. This year's training course was the 20th course organised by this Unit. Twenty-five trainees completed the course in April, 1980. The alumni of the course have been employed as school counsellors in various parts of the country. They also man the state level agencies of guidance and work in other allied fields. The staff of the Unit also acted as resource persons in career masters training course organised by the State Institute of Education, Delhi.

9

Educational Technology

The rapid advances in science and technology have made available potent means which, if creatively used, can improve teaching-learning process. Educational psychology, for educational purposes, does not confine itself to the use of more

modern means of mass communication. It is a much wider concept and encompasses work in the fields of the psychology of learning, curriculum and curricular materials, audio-visual methods of communication, educational broadcasting (Radio & TV), evaluation and studies of cost-effectiveness etc.

The Council, while concentrating its effort on the development and use of low-cost (charts, models, pictures, flash cards etc.) and medium-cost aids (film strips, slides and audio tapes), has nevertheless been exploring the potentialities of the high-cost technology and distance-learning systems (film, T.V., radio etc.) for mass education.

During the year, three Departments of the Council viz. Department of Teaching Aids, Centre for Educational Technology and the Workshop Department, have made significant contribution in developing materials and promoting their use in the school system. The work done in different areas of educational technology is discussed below.

DEPARTMENT OF TEACHING AIDS (DTA)

Curricular Materials : In December, 1979, the Department finalised the scripts on science film-strips in collaboration with the Department of Education in Science and Mathematics, Regional College of Education, Mysore and Bhopal, and the State Institute of Science Education, Allahabad. Eighty charts on the curriculum of Class IX and X were developed through another workshop in February-March 1980. The Regional College of Education, Mysore, State Institute of Education, Trivandrum, State Council of Educational Research and Training, Madras, the Delhi University and the British Council collaborated in the Project.

Folio on History of Indian Freedom Movement : In February, 1980, a folio on History of Indian Freedom Movement was finalised with the help of experts, visualisers and media persons from the Indian Council of Historical Research, Victoria Memorial Museum, Calcutta, and some other eminent historians.

Production of Teaching Aids on Population Education : Teaching aids on Population Education were developed through two workshops in September, 1979, and January, 1980, in which, among others, the British Council collaborated. Scripts on the following five

themes of population education were revised and finalised through two workshops.

- Meaning and scope of population education.
- Dynamics of population.
- Consequences of growth of population.
- Family life and welfare.
- Policies and programmes.

The Department also initiated shooting a film on "Consequences of the growth of Population". The production of tape-slides on the remaining four topics is planned for the year 1980-81.

Flash Cards on Non-Formal Education : DTA finalised a set of 28 flash cards related to non-formal education which are ready for printing. It collaborated with the Tribal Education Unit in the production of a primer entitled "Utho Jago" for use in non-formal education centre in tribal areas of Madhya Pradesh.

Tape-slides on Culture Series : The production of tape-slides as a part of its project on "Indian Culture" was taken up. Tape-slides on the following topics are in the final stage of production :

- Sanchi.
- Bharata Natyam.
- Aditi (Relating to child craft and education).

A project on the production of "Kit on India" for foreign schools has also been taken up and its operational details are being worked out.

Production of Films : The production of colour film "Learning through Environment" which has also been dubbed into Hindi with the title "Parivesh Se Shiksha" has been completed. The production of the first of the five films on micro-teaching for the Department of Teacher Education is under way. Indore University is collaborating in the project.

Six of the films produced by DTA were received by various countries under the cultural exchange programme. In return, the Department received two films from the Federal Republic of Germany.

Low-cost Teaching Aids : The Department is preparing a manual to enable teachers of rural primary schools to prepare teaching aids themselves. The UNESCO, Bangkok, is supporting an allied project on "Low Cost Appropriate Materials/Equipment in India.

Extension and Consultancy : The DTA continued its extension and consultancy services. A large number of films, filmstrips, slides etc. were given on loan to educational institutions and reference services and consultancy on various aspects of educational technology were provided. Its facilities in photography, sound recording, silk-screen printing and projection were extended to other departments of the Council and to other educational institutions.

Training : A training course for Centres of Continuing Education in the operation and maintenance of A. V. equipment was organised in November-December, 1979.

Seminar on Management of A. V. Resources : A two-day seminar on the management of A. V. Resources was organised for Kendriya Vidyalayas of Delhi (February, 1980.)

Training of Foreign Scholars : Training in different aspects of audio-visual education and production was imparted to a scholar from Uganda for 3½ months and to another from Afghanistan for 3 months.

CENTRE FOR EDUCATIONAL TECHNOLOGY

Training, Orientation, Seminars and Workshops : The following training courses and seminar were organised :

(i) Two workshops (April and November, 1979) for training script writers for different Doordarshan Kendras. These workshops were followed by a follow up of eight-week intensive training course in ETV script writing and production (December, 1979 and February, 1980) at Delhi. Thirty-six ETV scripts were developed and nine programmes were produced.

(ii) A training course in 1/2" portable video production (May, 1979) for imparting working knowledge about the theory and practice of portable video production.

(iii) Prototype production of ETV programmes for very young children was taken up with British Council collaboration (September.

1979). Eight scripts were developed in the workshop and four programmes based on these scripts were produced.

(iv) A four-week orientation programme on film animation (May, 1979), participated by representatives of Doordarshan, E. T. Cells, Film and Television Institutes of India. Short films based on the graphic art-work were produced as part of training.

(v) A two-week training course-cum-workshop in script writing for the primary school broadcasts at Pune. The programmes based on these scripts were also tried out in village schools.

(vi) A two-week training-cum-orientation course on Evaluation in Educational Technology (November, 1979) for the personnel of E. T. Cells.

(vii) A three-day orientation workshop (September, 1979) at Shillong to assist the E.T. Cells of N. E. States in developing meaningful programmes in educational technology, the Centre organised a three-day orientation workshop (September, 1979).

(viii) A five-day seminar on educational technology and its role in universalisation of primary education, in Delhi, in February, 1980. E. T. Cell officers, A. V. officers and officers in charge of primary education from different states participated.

(ix) A three-day seminar in September, 1979, of programme producers of various Doordarshan Kendras producing children's programmes, to discuss problems and techniques of producing good television programmes for young children.

(x) A ten-day seminar, in May, 1979, on the management and organisation of correspondence education. Participants from 8 universities and two Boards of Secondary Education offering correspondence courses participated.

(xi) CET extended active help in organising and also participated in 3-day seminars on educational technology organised in the States of J & K, U.P. and Union Territory of Delhi; at Srinagar in September, 1979, at Allahabad in March, 1980, and at Delhi in March, 1980.

Production : The Centre has produced the following instructional/learning materials both as prototype productions and for its training programmes:

(i) A series of radio programmes and support materials for teaching Hindi as a first language to children of Class I.

(ii) Fifty-seven audio-tape programmes, under the project on development of educational programmes using archival materials of Akashvani, bringing the total to 213 programmes.

(iii) A series of talks on audio-tapes to be used as basic training materials in the training programmes for script-writers for primary school broadcasts.

(iv) Proto-type radio programmes for pre-primary and primary school children. These aim at language teaching, cognitive development, and providing support to chosen areas of school curriculum.

(v) Four television programmes based on scripts developed during the workshop for the production of TV programmes for very young children.

(vi) A tape-cum-slide programme, each on 'Science in your Environment' and 'Cold Welding'.

(vii) The film on 'Models' (Vigyan Ki Padhai No. 3) has been re-made. Editing of the film is in progress.

(viii) Shooting of the film on 'Solar Eclipse' has been completed.

(ix) One more design of the prototype of the improved Rear Projection screen has been developed. With this, there are now seven different designs, which are being tried out for their comparative effectiveness, ease in use, and cost considerations.

Multi-media Module for Continuing Education of Instructors of NAEP : At the instance of the Ministry of Education and Culture (the Directorate of Adult Education) the CET took up in June, 1979, in collaboration with the Xaviers' Institute of Social Sciences, Ranchi (Bihar), a project for the development of multimedia module for continuing education of Instructors of National Adult Education Programme (NAEP). Assessment of the needs of the instructors for their continuing education is being done and on the basis of this assessment the training materials would be developed.

Research : Research studies on (i) School Broadcasts in Delhi and (ii) Utilisation and Comprehensibility of School Television pro-

grammes of Delhi Doordarshan have been completed and reports brought out. A research study on 'Correspondence Education at Secondary Level in Delhi' was initiated in February, 1980. Data collection is over. Data have also been collected in respect of a study on TV programmes for Primary School Children.

Evaluation of materials and training programmes of the CET is an in-built activity of the Centre. During the period under report, a number of materials and training programmes organised by the Centre were evaluated. The findings were reported to the producers/organizers with definite suggestions for improvement of the materials and programmes.

Special Projects : The CET is carrying out a feasibility project on teaching Hindi as a first language with the help of Radio and support print materials which aim at improving language learning by students of primary classes. The experiment is limited to *483 Primary Schools* of 15 panchayat samities in the districts of Ajmer and Jaipur of Rajasthan. The experiment was confined to Class I in the first year (1979-80) and would be extended to cover Classes I and II in the second year and Classes I, II and III in the third year. A mid-term evaluation of the project was done in December, 1979. The project schools showed gains in reading and language development as compared to non-project schools. The evaluation on completion of one academic year of the project was done in April, 1980, the data of which is being analysed.

Project on Continuing Education of Weavers : The project aims at development of prototype course materials for continuing education of weavers in a handloom weavers' colony in Delhi called Nandanagiri. A survey was conducted on the socio-economic conditions, practices and technical and marketing problems of the weavers. Based on this survey, a curriculum and some course materials were developed which included improved practices in weaving, designing, dyeing and covering managerial, marketing and banking aspects.

WORKSHOP DEPARTMENT

The major functions of the Workshop Department is to lend support to the various constituents of the Council in the production of materials. Over the years, it has built expertise in designing and fabricating low-cost equipment required for the teaching of science at the school stage. During the year, the Department undertook a

number of activities in the areas of development, training and production. These are discussed below :

Development Work : The Department developed the following prototypes :

- The first prototype of the Integrated Science Kit for middle classes was developed and discussed with the teachers and state counterparts in the seminar organised by DESM in November, 1979 to March, 1980,
- Two more models of the Electronic Kit for teaching Electronics at+2 stage were brought out and are being tried out.
- Seven models of day-light rear projection screen were developed and tried out. This project was handled jointly by the Workshop Department and CET.
- Two sets, each consisting of nearly 200 items pertaining to the project "Cognitive Development of Indian Children" were developed. The Child Study Unit collaborated.

Training : Six ITI apprentices, one in each of the trades of Turner, Fitter, Carpenter, Sheet-Metal and two in the trade of Electrician were given training facilities during 1979-80.

Production of Science Kits for States : Workshop Department has been busy in the production of Science Kits for States during recent years. A total of 2728 primary science kits (@ Rs. 2.10 per kit) as mentioned in the table below have been despatched to the SIE's District Education Officers of different States :

<i>Name of the States/ SIE's</i>	<i>No. of primary science kits supplied</i>
Jammu	638
Srinagar	395
Himachal Pradesh	287
Ladakh	104
Bihar	
<i>i)</i> Dumka	200
<i>ii)</i> Singhbhum	400
<i>iii)</i> Palamau	500
<i>iv)</i> Giridih	200
Other Institutes	4
	2728

Central Storage, Distribution and Store Verification : Under UNICEF Science Education Programme, the UNICEF stores section of the Department received imported equipment and paper which were distributed to different states.

Service and Maintenance : The Maintenance Section of the Workshop Department is engaged in repair and maintenance of all Council's vehicles, air-coolers, air-conditioners, Water-coolers, fans, P.A. System and all electrical gadgets in the NIE Campus.

10

Measurement and Evaluation

Measurement and Evaluation is one of the major areas of Council's work. This is looked after primarily by the Department of Measurement and Evaluation, which was constituted in June 1979 by merging the Examination Reform and

Examination Research Units. The work in this area comprises :

- Research (fundamental and functional)
- Development (of material and operational strategies)
- Training (both pre-service and in-service)
- Publications (both conceptual and operational)
- Clearing House Functions (both national and international)

The area of examination reform also falls within the purview of this field and covers both evaluation in and by the schools as also through external examinations.

In functional terms, this means comprehensive evaluation, incorporating both the scholastic and non-scholastic aspects of pupils, growth; continuous evaluation spread over the total span of instructional time as an integral part of the teaching and learning process; and wider use of test results not merely for the assessment of the level of pupils' achievement but mainly for the improvement of the same through both remedial and enrichment programmes.

While research projects undertaken under the ERIC programme are reported separately, three other studies were initiated during the period. These were :

- (i) Specific steps to combat malpractices in Examinations.
- (ii) Practices of evaluation in secondary schools.
- (iii) Weightages allotted to different models of assessment in different states.

The work in this area consists of collaborative efforts with the state level educational agencies like State Departments of Education, State Boards of Secondary Education, State Institutes of Education, State Councils of Educational Research and Training, State Evaluation Units and teacher training institutes at both elementary and secondary levels.

It is gratifying to note that the programme has received extensive appreciation outside the country while, at the same time, it stands accepted by most of the States and Union Territories. The Unesco has also decided to give wider publicity to the Indian programme by publishing a book entitled "Examination Reforms in India". The book has been published in English, French and Spanish.

Evaluation also happens to be one of those areas where expertise is being exported. During the year, officers of the Mahatma Gandhi Institute, Moka, Mauritius, were offered training facilities in Educational Evaluation. Other programmes in this area during the period included a seminar each on the evaluation of non-scholastic aspects of pupils, growth and on scaling of examination results organised with the collaboration of the British Council.

With a view to co-ordinating examination reform activities in different States, a Conference of the State Evaluation Units was organised. This was attended by representatives from sixteen States and union territories.

Developmental Programmes

An expert meet for Item Writing in Biology for Classes IX X was held at NIE Campus, NCERT, New Delhi in July, 1979.

Two working group meetings were held at NIE Campus, NCERT, New Delhi, in November, 1979, for finalising unit tests in English and Geography for the +2 stage.

A workshop to develop item bank in Biology for +2 stage was held at NIE Campus, NCERT, New Delhi, in October, 1979. Seven senior experts participated.

Two working group meetings for refinement of unit tests in History and Economics were organized at the NIE Campus in December, 1979.

Training Programmes

A workshop was held at Bhimtal, U.P., in June, 1979, for training item writers in English and Geography. The workshop was attended by 10 persons in English and 8 persons in Geography.

A workshop was held at Nainital, U.P., in June, 1979, for training item writers in Biology. Nineteen persons attended the course. A training course for item writers in History and Economics was conducted at Nainital in June, 1979. A training course for item writers in the subjects of Geography, History and Biology, was held at the NIE Campus, NCERT, New Delhi, in March, 1980.

A workshop for training paper-setters of the U.P. Board of High School and Intermediate Examination was held at Allahabad in

September, 1979 About 50 paper-setters of English, Hindi, History, Civics, Economics and Geography were trained in the concepts and techniques of evaluation.

Consultancy Services

The Department of Measurement and Evaluation collaborated with the Central Board of Secondary Education, New, Delhi, for training their head-examiners in evaluating and marking the scripts in English. A workshop was held by the C.B.S.E. in May, 1979, in Delhi. Twenty participants from all over India attended the workshop. There has been an increasing demand for consultancy services from official and non-official organizations.

The Department has also been providing consultancy services in testing to Public Sector Undertakings. During 1979-80, we provided this expertise to the Steel Authority of India Ltd. for selection of executive trainees. The Rajasthan Public Service Commission, Ajmer, and Navyug Higher Secondary School, Delhi, have also sought our help. A private agency, the All India Management Association, Delhi, has also requested for consultancy services.

11

Survey Data Processing and Documentation

The compilation of statistics and the generation of information which helps educational planning is an essential function of the NCERT. Its survey and Data Processing Unit has conducted three All-India Educational Surveys which

have provided information in regard to the availability of schooling facilities in villages and habitations and the overall status of education in the country.

Fourth All-India Educational Survey : During the year, the Unit remained primarily concerned with the completion of the Fourth All-India Educational Survey. The work on this survey started in 1978; the date of reference for collecting information was the 30th September, 1978. The Survey and Data Processing Unit continued to give guidance and technical assistance to the State Survey Officers and other officers in the States involved in the Survey work in the preparation of District and State tables. These tables were finalised at the State level after checking the internal consistency and correctness of information. From the State tables, which were sent to the Unit, national tables have been compiled.

The report of the survey, except the U.P. report, was ready. Preliminary statistics are being released. The report should provide useful data for planning of educational facilities at all levels of school education, particularly during the Sixth Five Year Plan, 1980-85. It will also help in assessing the progress achieved in enrolment, availability of qualified teachers and provision of educational facilities during the last few years.

Monitoring of School Attendance : Along with the Fourth All-India Educational Survey, a programme of monitoring average daily attendance in primary and middle schools on a quarterly basis was taken up. The report is in the process of being prepared.

Publications of the Third All-India Educational Survey : The following reports of the Third All-India Educational Survey, which had been submitted earlier for publication, have been brought out :

Educational Facilities and Enrolment (School Education)

School Buildings

Teachers

Work Experience in Schools

Hostel Facilities for Scheduled Castes

Non-Formal Education.

Data Processing Service : The Unit continued to provide assistance to the different departments and Units of the NCERT as well

as the Regional Colleges of Education in the processing of their research data.

Installation of Computer Terminal : A computer terminal has been installed with the assistance of National Information Centre of the Electronics Commission. The terminal is equipped with a LSI-2/10 processor having 32 K 16-bit words memory. With this facility, research effort of the Departments as well as individual scholars who are registered with universities for Ph.D. degree will be greatly benefited. It would also help in monitoring and evaluation.

Consultancy and Training : The Unit provided assistance to research workers, including Ph.D. students in the field of education from universities and other research organisations, in matters relating to research design, procedures of statistical analysis and in computer processing of data. Participants from other countries (e.g. Uganda, Nepal) were also trained on being sponsored by these countries. The unit also organised a two-week training programme for an officer from the Ministry of Education, Japan, in the areas of information processing, documentation and information systems.

The NCERT Library functions as major mechanism for documentation rather than merely a place for issuing books. It performs a number of roles such as documentation of information, preparation of select bibliographies, training of school librarians on demand etc. Some of the activities performed by it during the year are stated below.

The following publications were brought out by the Unit :

Education of Indian Women—A bibliography

Futurology of Education

Education Abstracts, Vol. 2, Nos.2, 3 & 4.

Current Literature in Education—Index Vol. 2, Nos. 2, 7, 3.

The library purchased books worth Rs. 1,00,000/- including books worth Rs. 30,000/- purchased from the World Book Fair. The total number of books acquired during the year was 1992 out of which 1623 were purchased and 369 received gratis. With the addition of these books the total number of books available in the library rose to 99,327. Procurement of back volumes of important journals conti-

nued. The Library purchased the International Dissertation Abstracts Gr. B. during the year. This has satisfied a long felt need of the readers. The Unit also rendered photo-copying service to the readers. The number of photocopies made during the year was 4,869.

The Library has been getting journals on gratis, exchange and subscription basis. During the year, 256 journals were subscribed for, 13 received on the basis of exchange, and 75 received gratis.

12

Research and Innovations

Research and support for research are important activities of the Council. Apart from the Departments/ Units and Colleges of the Council undertaking research, the NCERT supports educational research by providing financial assistance

to outside organisations. It also supports Junior and Senior Research Fellowships with the purpose that educational problems are investigated and that a band of competent research workers is created in different parts of the country. Most of the researches, undertaken or supported by the NCERT, are in identified areas of priority.

The Educational Research and Innovations Committee, which was set up in 1974, is the principal mechanism for supporting research. The Committee has ten outside members drawn from universities/research institutes and State Institutes of Education/SCERT's. In addition, all the Heads of the Departments of the NIE, Principals of the RCEs, Dean (Academic) and Dean (Coordination) are members of the Committee and the Professors of NIE and RCEs are permanent invitees. The main functions of the ERIC are :

To support research, innovative projects on education and allied sciences on priority areas determined by the ERIC.

To give publication grants for Ph.D. thesis, monographs, etc.

To disseminate research findings through annual reports from time to time.

To conduct research conferences by inviting scholars and presentation of research papers.

During the year under report, a number of important decisions were taken which, apart from streamlining the procedures, will ensure that priority areas of research receive greater emphasis in financial support. Some of these are discussed below :

Screening Committee : With a view to evaluating the proposals submitted by the Departments and outside organisations for financial support, a Screening Committee was set up. This Committee evaluates critically the research proposals particularly from the point of view of priority and their worthwhileness. The Committee has on its membership two university professors, two professors of the NCERT and a Member-Secretary of the ERIC; the Joint Director is the Chairman of the Committee.

Sponsored Research Projects : A Committee consisting of experts, both from within and outside the NCERT under the Chairmanship of the Director, considered proposals relating to the studies

of achievements by children in primary schools. A few key-areas for sponsoring projects were identified ; these are as follows :

- Learning difficulties of the socially disadvantaged and development of suitable strategies to overcome the difficulties.
- Educational disparities within States in different geographical areas in relation to educational inputs and social investments.
- Application of mastery learning techniques in formal and non-formal education.
- Study of the working of school complexes and their effect on the quality of education.

Research in Educational Policy : The Executive Committee recommended in its meeting held on 25th September, 1979 that research be undertaken in educational policy. To start with, the following broad areas of policy research have been identified :

- Equalisation of opportunities
- Curriculum relevance
- Talent Search and Nurture
- Educational Technology.

Detailed proposals and modalities of organizing research in these areas are being worked out.

Research Projects : During the year, 30 outside and 20 Departmental projects were completed, while 80 outside and 118 Departmental projects were ongoing. An amount of Rs. 1.92 lakhs and Rs. 4.52 lakhs was incurred on external and Departmental research projects respectively. Lists of Departmental and external research projects supported by the council during 1979-80 are given in Annexures to this Chapter.

The details of some of the completed projects are given below :

1. A STUDY ON EFFECT OF MICRO-TEACHING ON GENERAL TEACHING COMPETENCE AND TEACHER ATTITUDE OF B.ED. TRAINEES IN SHILLONG

PRINCIPAL INVESTIGATOR

...

Dr. Mathew George

Sixteen B.ED. trainees who were not deputed from schools and were capable of teaching in the medium of English were selected

from a College of Education in Shillong and served as samples in the study. There was significant change in the general teaching competence of B.ED. trainees as a result of micro-teaching in the simulated situation, but there was no significant change in the attitudes of B.ED. trainees as a result of micro-teaching practice in the simulated situation. Intensive training and practice of five important teaching skills in the simulated situation helped the trainees to acquire other teaching skills and to integrate them in to the repertory of teaching skills.

2. DEVELOPING INSTRUCTIONAL STRATEGIES FOR TEACHING HINDI AS A SECOND LANGUAGE TO THE URDU MEDIUM STUDENTS OF DELHI ON THE BASIS OF AN IDENTIFICATION OF VARIABLE INVOLVED IN DIFFERENT ASPECTS OF HINDI ATTAINMENT OF URDU MEDIUM CHILDREN

PRINCIPAL INVESTIGATOR ... *Shri Jaipal Singh Tarang*

Special instructional strategies and learning situations were planned in a manner that Urdu medium students were able to discover the regularities of correspondence between acts of speech and behaviour antecedents. To control and guide the teaching-learning situations with a view to achieving objectives, different aspects of Hindi attainments were identified. The investigation has established the fact that there are certain higher order structural characteristics of Hindi language for Urdu medium students in which Urdu medium students are lagging behind.

3. A STUDY OF THE AGRICULTURAL EDUCATION AS A SUBJECT IN THE SECONDARY/SENIOR SECONDARY SCHOOLS OF DELHI

PRINCIPAL INVESTIGATOR ... *Shri Devender Kumar Gupta*

This study intended (a) to find out who imparts instructions in agriculture as an academic subject at plus 2 level and as a work experience activity at secondary level; (b) to know the ideas of students who offer agriculture as a subject; and (c) to offer suggestions for the improvement of agricultural education at the school level. Sixty secondary/senior secondary, boys/girls, rural/urban schools of the Union Territory of Delhi were included in the study.

Agriculture as an optional subject at middle level in rural, urban and co-educational schools, was offered by 22.8%, 0.85% and 23.8% of the students respectively. At senior secondary level this subject had been offered by 35.8% students in rural areas. No student offered it in urban areas. It was found that there is a dearth of professional teachers to teach agriculture based work experience. Teachers pointed out lack of physical facilities, cooperation from other teachers and PTA, shortage of books on agriculture in school library, and lack of proper care of school garden and school farm after school hours as some of the major problems in the teaching of agriculture as an academic subject at +2 level and as a work experience activity at secondary level.

4. DEVELOPMENT AND TRY OUT OF A CURRICULUM FOR MENTALLY HANDICAPPED CHILDREN

PRINCIPAL INVESTIGATOR

...

Dr. N. N. Shukla

The objectives of this study were to develop a curriculum which will cater to the individual abilities and interests of mentally retarded children, to enable the mentally retarded children to be integrated into society and provide more or less uniform pattern for the schools of mentally handicapped. The study was limited to greater Bombay. The media selected were Marathi and Gujarati. Educable children having an I.Q. between 50 to 70 were selected for tryout. This was only a pilot project, and curriculum for one year (first year) has been prepared and tried out. The curriculum was taught to the pupils. The progress of the pupils selected was evaluated on the basis of performance on the pre-tests, post-tests, opinions of parents and opinions of teachers.

5. STUDY OF THE PROBLEM OF GIRLS' EDUCATION IN A SELECTED DISTRICT OF WEST BENGAL (AGE GROUP 6+to 11).

PRINCIPAL INVESTIGATOR

Mrs. Santi Dutt

The district of Purulia was selected for this pilot study, the area being one of the most backward districts in West Bengal. The most important part of the project was field survey during which at least 50 schools were visited. It was observed that a large number of Bengalees were migrating into this district from different places

particularly from Bihar and East Bengal. These people have raised the percentage of girls' literacy in the district. After 4 to 5 months of admission, the attendance had become thinner, indicating a high dropout rate. A variety of reasons account for dropout, including domestic conditions and failures in class promotion. The answers received from parents revealed acceptance of the importance of girls' education while poverty was shown to be main obstacle in girls' education.

6. THE ATTITUDE OF THE PARENTS AND STUDENTS OF AURANGABAD TO THE LEARNING OF AND PERFORMANCE IN ENGLISH

PRINCIPAL INVESTIGATOR ... *S/Shri Keshav Mutalik & Ramdas Borude*

The study attempted to gauge the opinion of students, teachers and parents to the learning of and performance in English. The survey revealed that English has assumed enormous prestige value in Aurangabad and good speakers in English were always in demand and commanded respect. Students, teachers and parents had great regard for the English language. They admitted that English was a prestigious language and provided very wide scope for business, jobs and social status. People from all communities and all age-groups opined that English had to be learned and well. Another finding of the study was that despite the interest of the learners, the learning process was not satisfactory. Lower classes were usually assigned to freshers while higher classes were put in charge of experienced teachers.

7. AN EXPERIMENT IN OPEN LEARNING

PRINCIPAL INVESTIGATOR ... *Mrs. Sudesh Saint*

The basic guidelines which were followed in the experiment were : greater freedom to the learner and teacher to plan the learning experience; self-pacing in learning; individual attention to the children; encouragement to self-learning; co-operative efforts in learning; ungraded structure in learning; less emphasis on teaching and more on learning; programme to be bilingual i.e. both Hindi and English being used for giving instruction; and the child's progress to be evaluated according to his own ability rather than on examinations. Learning was attempted through creative and joyful activities rather than for-

mal instruction. The children were graded in different groups according to the age and ability of the child. They were encouraged to work on their own and guidance was given only when necessary. It was a mixed age group, and children had lot of inter-action, the younger children went to the older for help. A total of 19 children in the first year and 25 children in the second year participated in the experiment. The findings indicated the worthwhileness of the programme and showed that children in this stream moved much faster; there was much more work covered due to no-bell system and no change of periods; children were able to get individual attention due to a small number; they learnt to work on their own after 6 months and this habit was more prominent in the 2nd year; there was no competition in the children but there was a feeling of helping others in a co-operative spirit; children in ungraded structure had covered more syllabus and did well on the whole; bilingual approach was much accepted by the parents and the children from the village background did well in two years and their progress showed that the enriching environment helped them to change in spite of the fact that they had no facilities in their homes; and parents developed greater faith in this system through the progress of their children and through the parent discussion group.

8. DEVELOPING AN EFFECTIVE MODEL OF NON-FORMAL EDUCATION FOR RURAL DEVELOPMENT

PRINCIPAL INVESTIGATOR ... *Shri Moti Lal Sharma*

The Study was undertaken to develop a systems model for planning non-formal education which would help in planning, producing and evaluating learning materials and programmes for specified audience. The project was conducted in a village in Surat District. Teachers, students, administrators and local citizens of the village were interviewed for collecting the necessary information.

The study concluded that (a) dialogue as a method of instruction was very effective; (b) door to door meetings and meetings in small interest group were found to be effective for both education and motivation of the people; (c) clubs like farmers' club, women's club, Bhajan mandal, could be effective channels for educating masses and raising awareness among them; (d) NFE programme could be introduced with the help of health, education or economic development programmes; (e) people need to be introduced to agencies like banks,

hospitals, post office, police station, railway station, co-operative etc. and other general public services which are meant for them, and (f) participatory approach for training of the NFE facilitators was found to be useful and effective.

9. ROLE OF LADY TEACHERS IN THE UNIVERSALISATION OF PRIMARY EDUCATION IN TWO DISTRICTS OF WEST BENGAL WITH SPECIAL REFERENCE TO 'WHETHER A MAN OR WOMAN TEACHER HAS A BETTER ATTITUDE TO TEACHING AND BETTER TEACHER TRAITS AT THE PRIMARY SCHOOL STAGE'

PRINCIPAL INVESTIGATOR ... *Smt. Latika Gupta*

The study was taken to identify the specific role which women teachers can perform better than male teachers in the universalisation of primary education. The investigation was confined to districts of 24 Parganas and Calcutta in West Bengal. Questionnaire was administered to 572 teachers, 400 pupils and 48 guardians to know their views regarding the attitude and traits of teachers at primary level.

Female teachers were found to be more efficient than male teachers because they (a) gave more attention to children, (b) were more attracted by children, (c) helped pupils in fostering good habits, (d) inspired the children to develop potential traits for the attainment of distinction; and (e) did not discriminate between good and bad children in giving attention to their personality development.

10. ELEMENTARY NON-FORMAL EDUCATION FOR OUT-OF-SCHOOL CHILDREN

PRINCIPAL INVESTIGATOR ... *Shri D. V. Chickeremane*

The experiment was conducted for a period of ten months on a class of out-of-the school children at Gokran. The main findings of the experiment were (i) that the provision of part-time education is the only way for universalisation to be a success and also for eliminating wastage and stagnation. Part-time education should fall into two different categories, (ii) it should cater to children who have not learnt up to Grade IV, and meet the educational requirements of those who are a little more advanced and have left school after Grade IV.

Most of the children fall in the first category. The number of the second category would not be adequate for organizing a class and therefore, for these children a programme of non-formal education should be organised. Elementary non-formal education should have elements of vocational education, particularly agriculture and gardening. The curriculum should reflect the rural environment and be related to work and development. Education should be given through activities and the work done by children on the farm should be related to the instructional programme. Elementary non-formal education classes should be attached to primary schools. These classes should be run in the afternoons and be in charge of full-time teacher who in his spare time will pay home visits and see the work that children do at home or on the farm. Where voluntary agencies agree to run such centres, they may be granted permission to run such classes and the expenses incurred by them, including the salary of a full-time teacher, should be reimbursed on a full grant-in-aid basis.

11. CASE STUDIES OF TEACHER EDUCATION INSTITUTIONS (ELEMENTARY AND SECONDARY)

PRINCIPAL INVESTIGATOR ... *Miss C. Mehra*

The main aim of the project was to (i) study the teacher training institutions in depth with a view to finding out their strong and weak points; and (ii) to give suggestions for the improvement of these institutions. Three teacher training colleges and six elementary teacher training institutions were included in the study. A questionnaire and an interview schedule was developed. Observation of classes taught by the teacher trainees in the attached model schools and interviews with teacher trainees and teacher-educators were also made.

At the elementary level, different aspects of the programme such as curricular programme, pedagogical subjects, practical work including practice teaching and community education were studied. Academic and professional qualifications of the staff, their teaching and other work done by them were also studied. The curricular programme and practical work as reported by the institutions was the same because their syllabus was prescribed by the Directorate of Education and the training institution had no option to change it. However, facilities with regard to building, equipment and number of staff members were not uniform.

12. A STUDY OF IN-SERVICE EDUCATION NEEDS OF SECONDARY TEACHER-EDUCATORS IN INDIA

PRINCIPAL INVESTIGATOR

...

Mrs. Satya Priya Gupta

The objectives of the investigation were to study (a) the relationship between qualifications and in-service education proneness of the secondary teacher-educators; (b) the relationship between the professional experience and in-service education courses preferred by the secondary level teacher-educators in view of the emerging curriculum change at the school level and the corresponding changes in the teacher education curriculum; (c) the relationship between the professional experience and in-service education proneness of the secondary teacher-educators; (d) to identify the specific units/topics under each of the curricular areas identified at (b) above; and (f) to study the congruence between the qualifications (academic and professional) and instructional allocation (subjects being taught by the teacher-educator to B.Ed. classes).

Twenty-eight institutions from 14 states responded and the number of teacher-educators who sent the completed questionnaire designed for the study was 138 only.

The main findings included :

- (i) There is no relations between the qualifications of secondary teacher-educators and their in-service education proneness.
- (ii) There is no relationship between the length of professional experience of secondary teacher-educators and their in-service education proneness.
- (iii) In view of the emerging curriculum change at the school, in-service education courses required by the secondary teacher-educators have been identified in specific subject areas.
- (iv) By and large there is congruence between the qualifications and instructional allocation, except in the case of these secondary teacher-educators who are involved in the teaching of 'Methodology of Teaching Geography', as they do not have any degree in Geography.

13. RESEARCH AND DEVELOPMENT IN TALENT SEARCH

PRINCIPAL INVESTIGATOR ... *Dr. R.G. Misra*

The objectives of the programme included: (a) development and supply of tests required for the National Talent Search Examination held annually by the Council; (b) study and refinement of a variety of items and tests on the basis of the data collected annually; (c) study of characteristics (background abilities, personality, values etc.) of NTS entrants and awardees; and (d) conducting long-range prediction studies of awareness performance. The work on the programme outlined above is aimed at continuous improvement of the quality of the programme of talent search through research and development so as to make it (the programme) an effective instrument of identification, recognition and development of national talent in diverse fields. Thus a recurrent project involves collection and analysis of information on a continuous basis. During the year under report, the following work was done :

Manual scoring of four creativity tests and two personality tests of creativity administered during July 1977, has been determined. Originality weights for each activity have been determined. Correlational and factor analysis studies on 1977 data have been completed; scoring of the tests administered during July 1978 is in progress. Social background analysis of 2,274 candidates drawn from 1977 NTS Examination has been completed. Scoring and item analysis of two personality and one interest inventory administered during July 1977 has been completed. The three tests were administered to Classes XI and XII candidates in July 1978. Scoring of the tests is in progress. Five tests of general mental ability of 100 items each were developed and supplied to the NTS Unit for the 1978 supplementary and 1979 main N.T.S. Examination.

14. NON-VERBAL TEST OF INTELLIGENCE

PRINCIPAL INVESTIGATOR ... *Dr. P.M. Patel*

Under this project, a test is prepared and supplied to the Ministry of Education every year in connection with the Merit Scholarship Scheme in approved residential schools. During the year 1978-79, a new sub-test on non-verbal intelligence was designed, developed and supplied to the Ministry.

15. STUDIES IN SCIENCE TALENT

PRINCIPAL INVESTIGATOR ... *Dr. M.K. Raina*

These studies have the following objectives: to study the rate of attrition according to the social and academic background of drop-outs and the reasons for dropout, to make comprehensive study of the social, academic and other background factors of those who were selected, called for interview, and rejected in 1976 NST examinations.

Dropout rate has been worked out for each successive year and an interim report has been submitted. An analysis of the N.T.S. Examination held in 1976 was conducted with a view to studying the background (rural, urban and semi-urban), male-female distribution, types of schools attended, scholastic background; scholarships obtained, average family income and occupational status of the parents of those who were selected, called for interview, and rejected and absolutely regretted on the basis of written test. Data have been collected regarding the causes for dropout for each successive group. Data have been collected about the academic performance of those selected students who have done B.Sc., M.Sc. and Ph.D.

16. PROBLEMS BEARING ON TEACHER EDUCATION FOR 10+2 PATTERN OF SCHOOL EDUCATION : A CASE STUDY IN MAHARASHTRA

PRINCIPAL INVESTIGATOR ... *Shri J.C. Goyal*

The study was taken up (a) to identify problems faced by the State Government in the preparation of teachers for the new pattern; and (b) to provide suitable suggestions. A questionnaire was sent to all the secondary level teacher education institutions of Maharashtra to identify the problems bearing on teacher education for 10+2 pattern of school education. Interviews were held with the concerned officers of the Directorate of Education, State Institute of Education, State Board of Teacher Education and Directorate of Technical Education. The syllabi of all the levels of school education were analysed to find out the new features and courses added to the new pattern. Teacher education syllabi of various universities in the State were also examined to find out as to what corresponding changes had been incorporated to make them responsive to the emerging needs of the new school curriculum.

The major findings were :

- (i) None of the six universities in the State had incorporated any change in their syllabi in the light of the new pattern except that some universities have introduced work experience and community living programme in the B Ed course.
- (ii) No teacher education institution in the State is preparing teachers for vocational courses.
- (iii) The common problems being experienced in the State in connection with the introduction of 10+2 pattern were : shortage of properly qualified teacher-educators in Geography, English, Mathematics, Science, Commerce, Agriculture and Work Experience; need for in-service training of existing teachers, particularly in Geography, Science, Mathematics, and Work Experience; paucity of funds and facilities for work experience programme and health and physical education; shortage of time for work experience activities; and no time being devoted to teaching of content in the secondary teacher education institutions as it is not included in their syllabi.

17. COMPARATIVE STUDY OF STANDARDS AS REFLECTED IN THE SYLLABI OF SCIENCE AND MATHEMATICS OF THE STATES WHERE THERE IS PUBLIC EXAMINATION AT THE END OF CLASS X

PRINCIPAL INVESTIGATOR ... *Dr. M.S. Khaparde*

The main objective of the project was to make a comparative analysis of the syllabi in Science and Mathematics of Classes I to X of some States having 10-year school with a view to studying the standards as reflected in the different syllabi. Syllabi in Science and Mathematics of Classes I to X of nine states having public examination at the end of Class X were taken up for this study. The project has been completed in two phases. In Phase I of the project syllabi in Chemistry, Biology and Mathematics of Classes IX-X of 9 states were analysed. The NCERT's syllabus was considered as a presumptive standard for this study. In Phase II of the project, syllabi in General Science and Mathematics of Classes I to VIII and of Physics of Classes IX of 9 states were analysed and compared with reference to NCERT's Syllabus taken as a standard.

The two reports (Phase I and II) of the project provided an overview of the general standard reflected from the analysis of General Science and Mathematics syllabi of Classes I to X of 9 states with reference to NCERT's syllabus taken as a standard.

18. DEVELOPING AN AUDIO-TAPE LIBRARY IN THE CENTRE FOR EDUCATIONAL TECHNOLOGY

PRINCIPAL INVESTIGATOR ... *Shri B. A. Krishnamurthi*

Objectives of this study were (a) to prepare and record programmes of educational value based on recordings available at the Archives of All India Radio, other stations of AIR, Doordarshan and other sources for the benefit of students of higher secondary classes as well as those of the middle schools; (b) to prepare brochure for each of these programmes to serve as guides to the teacher when the programmes are played back to the students; and (c) to build up a library of recordings of these programmes which are informative and of interest to students and offer these programmes to individuals and institutions who need them for educational purposes. The programmes are supplied free of cost.

170 programmes produced under the project have been tried out in local schools as well as educational institutions in Andhra Pradesh and Tamil Nadu and the response from the students have been quite favourable. More than three hundred copies of programmes have been supplied to educational institutions, Educational Technology Cells, in States and Regional Colleges of Education. AIR stations have also broadcast a number of these programmes, including stations at Hyderabad, Trivandrum, Vishakapatnam, Bangalore, Calicut and Tiruchirapalli and also the External Services Division and AIR station in Delhi.

19. TO STUDY THE EFFECT OF SOCIO-CULTURAL DEPRIVATION ON THE EDUCATIONAL DEVELOPMENT OF RURAL CHILDREN IN THE AGE GROUP 6-11 YEARS

PRINCIPAL INVESTIGATOR ... *Dr. Kuldip Kumar*

The study utilised the already available data, collected during the SITE Impact on Primary School Children Study to understand the rural primary school children in terms of the relative performance of

children coming from different socio-cultural groups (within the rural society) such as girls, Scheduled Castes and Scheduled Tribes and other castes, children belonging to varying home educational environment upon selected variables, such as psycholinguistic development, scholastic achievement, educational and vocational aspirations. 644 rural primary school children drawn from the states of M.P., Rajasthan, Orissa and Andhra Pradesh, who were exposed to SITE programmes, were included in the study.

It was observed that boys and girls do not differ in their performance on psycho-linguistic development and scholastic achievement. Within boys, two significant differences were found between SC/ST and other castes children. The home educational environment showed some differential effect on the criterion variables. In the three levels of home educational environments identified in the study, it was observed that children belonging to Level II gained the maximum among the groups, and children studying in Class III showed higher gains than those of Class V.

20. COMPILATION AND LINGUISTIC ANALYSIS OF HINDI VOCABULARY OF THE CHILDREN OF PRIMARY CLASSES BELONGING TO HINDI SPEAKING AREA

PRINCIPAL INVESTIGATOR ... *Prof. K. G. Rastogi*

The study was designed (a) to compile Hindi vocabulary of children of primary classes with frequencies in respect of Classes I—V, types of vocabulary, area and sex; and (b) to analyse and describe the vocabulary, structurally, gramatically and semantically. Students from Class I to V drawn from 24 centres, representing 22 dialects of Hindi, including 96 schools—4 schools from each centre—representing rural/urban area, boys and girls schools of U.P. Rajasthan, M. P., Bihar, Haryana, Delhi and Chandigarh, were observed in the study. A master list, with different categories of frequencies and the gramatical, structural and semantical description of each work will be prepared.

21. A STUDY OF THE EFFICIENCY OF THE SECONDARY SCHOOL SYSTEM IN TAMIL NADU

PRINCIPAL INVESTIGATOR ... *Shri V. Arunajatai*

The main objectives of the study were :

(i) To define "Efficiency" in terms of certain broad objectives; relating to the cognitive and non-cognitive aspects of school work. (ii) Identification of factors—external and internal—contributing to efficiency of a school system, (iii) Identification of the strategic parts of a school system and their functioning, (iv) Identification of constraints and sources of conflict, (v) preparation of models, (vi) to study Headmaster's role in management.

Findings highlight various facts like inadequate physical facilities in schools, unhealthy surroundings of schools, the range of detention at the end of the 10th standard; overriding criteria of public examination, participation of schools in various competitions. It also supplies various information on the concept of 'School System.' This study has thrown light on factors promoting school efficiency as seen by headmasters and teachers as well as the factors retarding school efficiency as seen by headmasters and teachers. Several activities are identified in order of importance by pupils which are necessary for promoting social, cultural, civil values and exercising a healthy influence on school life. This is one of the unique features of the study. The inferences mostly drawn from opinions thus surveyed, are properly quantified.

22. A STUDY OF THE UTILISATION OF EDUCATIONAL FACILITIES BY SLUM-DWELLERS OF BANGALORE CITY IN RELATION TO THEIR SOCIAL AND ECONOMIC BACKGROUND

PRINCIPAL INVESTIGATOR

...

Dr. A. S. Seetharamu

The main objective of the study was to find out the participatory behaviour in schooling in slum areas. It also surveyed the utilisation of educational facilities by those slum-dwellers who participate in the schooling process. The study was set in Bangalore city. Multi-stage stratified random sampling technique was adopted to select the sample of one thousand children, 500 dropout and 500 regular children, all coming from 20 slums.

The study has highlighted numerous and diverse aspects about the participatory behaviour of slum children in the school system. Family variables and participation in schooling, parent's education,

parent's occupation, parent's income, type and size of family, school variables and participation, were taken into account here. The study also dealt with whereabouts of the dropout. For this, household duties, paid work, income of the dropout, failure in examination, physically handicapped among dropouts were observed to be influential factors. The study has attempted to go into some of the issues on utilisation of special educational facilities like mid-day meals, parent's income, need for extension, pre-matric scholarship, attendance scholarship, free supply of textbooks. It has also dealt with the common problems that parents face either in the utilisation of special educational facilities or in admission to school.

23. EDUCATION FOR INTEGRAL RURAL DEVELOPMENT IN RANCHI DISTRICT

PRINCIPAL INVESTIGATOR ... *Fr. M. V. D. Bogaert*

The final report stresses that the most important aspect in education for integral rural development is the approach used to involve people in decision-making, rather than the content of education.

The report analyses the weaknesses and difficulties which were faced by the project as well as its achievements and strengths.

The most important of these is perhaps that Government departments and academic institutions, engaged in providing the physical inputs for integral rural development in the area covered by the project, have begun to appreciate the importance of educational output.

This is partly an unexpected outcome, but is an important aspect of the conscientization process not only amongst the target population, but amongst the sponsors themselves.

The project offers a new prospectus for the future and indicates that, by and large, as a pilot project, it has yielded positive results.

24. SOCIAL PSYCHOLOGICAL PROBLEMS OF THE RURAL STUDENTS MIGRATING TO URBAN AREAS FOR STUDIES (A PILOT STUDY)

PRINCIPAL INVESTIGATOR ... *Dr. Subimal Deb*

The objective of the study was two fold,

(i) To survey the social psychological background of those rural students who have come to urban colleges for continuing Class XII/X course study which he could not do in his local rural schools/colleges.

(ii) To study the adjustment problems of the group with the other members in the hostel.

In this study, 150 rural students who fulfilled the condition of selection were treated as experimental group, and 150 urban (Calcutta) sample constituted the control group. Exploratory questionnaires which consist of (a) Information Schedule : Rural-Urban hostellers and (b) Self-Reporting Inventory : Rural-Urban Hostellers' adjustment were administered for collection of data. The schedule (a) is a 30-item questionnaire to determine the social psychological background of inventory, (b) is a 50-item questionnaire to assess the adjustment problems.

Statistical analysis highlights two important aspects.

(i) That these two populations clearly differ in their social-cultural value concepts.

(ii) That the rural samples who come to urban areas for continuation of studies suffer from serious adjustment problems in their way of living with the urban hostellers.

25. ORIENTATION CAMP FOR TEACHERS (UNDER "TEACHING GANDHI TO SCHOOLS' PROJECT")

PRINCIPAL ORGANISER ... *Shri Radhakrishnan,*
Gandhi Peace Foundation

The objectives of organising the camp were :

1. To make the teachers realise the need to develop in the students desirable attitudes and values based on Gandhiji's thought and action ;
2. To orient the teachers about the Gandhian values;
3. To orient the teachers about the techniques adopted by Gandhiji for tackling problems faced by individuals and the country;

4. To elucidate to the teachers the special features of basic education and socially useful productive manual work and community services, through visits to Nai Talim Institutions and conducting their case studies;
5. To develop programmes and activities for the schools for 'Taking Gandhi to the Children';
6. To conduct a comprehensive case study of Gram Dakshinamoorthy and certain neighbouring institutions from the point of view of socially useful productive work and community services.

Achievements :

The camp was, however, not without any achievements. As far as the Delhi School Teachers were concerned, it provided an "exposure" no matter how brief, to an excellent educational institution working on Gandhian lines and successfully implementing work-centred education.

It was an opportunity to meet and discuss at length with eminent Gandhian "practitioners" of educational theories, what basic problems were faced in schools in introducing Gandhian ideas and how they could be overcome.

For many Delhi based teachers, it was their first exposure to 'rural' life and the cultural life of another state. It was, thus, in a small way, a lesson in national integration.

Annexure-I

(Completed in 1979-80)

EXTERNAL RESEARCH PROJECT SUPPORTED BY ERIC

<i>Sl. No.</i>	<i>Name of the Project</i>	<i>Name of the Principal Investigator and address</i>
1	2	3
Educational Administration and Planning		
1.	Education for Integral Rural Development in Ranchi District.	Dr. M.V.D. Bogaert, S. J. Xavier Institute of Social Service, Ranchi
Educational Efficiency		
2.	A Study of the Efficiency of the Secondary School System in Tamil Nadu.	Shri N. Duraiswamy, Secretary, S. I. T. U., 95—A, Ramakrishna Mutt Road, Rajah Anamalaipuram, Madras.
3.	A study of the utilisation of Educational facilities by the slumdweller of Bangalore city & economic background.	Dr. A. S. Seetharamu, Instt. of Social & Economic Change, Bangalore.
Curriculum		
4.	Development and Tryout of a curriculum for Mentally Handicapped children.	Dr. N. N. Shukla, H. J. College of Education Samashodhan Sadan South Avenue Khar, Bombay.
5.	A Study of the Agricultural Education as a subject in the Sec/Sr. Sec. Schools of Delhi.	Shri D. K. Gupta Government Co.-Edu. Teachers Trg. Instt., Daryaganj Delhi.
Universalisation of Primary Education		
6.	Elementary non-formal education for non-enrolled & drop-out children below the age 14.	Shri D.V. Chickermane, Director, (Gargoti) Maharashtra.

1	2	3
7. Developing an effective model of non-formal education for rural development: A system approach.		Prof. G. B. Shah, South Gujarat University, University Campus, Udhana, Magdhall Road, Surat—395007.
Educational Psychology		
8. The attitude of the parents and students of Aurangabad to the acquisition of English—a psychology socio-linguistic study.		Dr. Keshav Mutalik, Marathwada University, University Campus, Aurangabad. (M.S.)
9. A Study of the Effects of some Cognitive Personality Factors on attitude Change.		Dr. (Smt.) Kamal Bhutani, C/o. Shri K. C. Bhutani, Hauz Khas Telephone Exchange New Delhi.
Special Education		
10. Social Psychological Problems of the Rural Students migrating to Urban areas for studies.		Dr. Subimal Deb, Reader, Deptt. of Applied Psychology, University of Calcutta, Calcutta.
Teacher Education		
11. An investigation into the causes of Backwardness in Girls Education in the State of West Bengal with special reference to the age group 6-14.		Mrs. Santi Dutt, Principal, Institute of Education for Women, Judges Court, Calcutta-27.
12. Role of Lady Teachers in the Universalization of Primary Education.		Mrs. Latika Gupta, Principal, Calcutta Girls B.T. College, 6/1, Swinhole St., Calcutta.
13. Orientation Camp for Teachers under "Teaching Gandhi to Schools".		Shri Radhakrishna, Gandhi Peace Foundation, Døen Dayal Upadhayaya Road, New Delhi.
Methods of Teaching		
14. An experiment in open classroom (free learning environment).		Mrs. Sudesh Saint Vidya Bhawan, Udaipur (Raj.).
15. A Study on the effect of Micro-Teaching upon General Teaching Competence and Teacher Attitude of B.Ed. Trainees in Shillong.		Dr. Mathew George, Deptt. of Edl. Research and Studies, NEHU Shillong—793003.

Vocationalization of Education : Work Education

16. Developing Instructional Strategies for Teaching Hindi as a second language to the Urdu Medium students of Delhi on the basis of an identification of variables involved in the different aspects of Hindi attainment of Urdu Medium children.

Shri Jaipal Tarang,
TGT (Hindi), Jamia Hr. Sec.
School, Faculty of Education,
Jamia Millia Islamia,
New Delhi.

Publication Grant

17. A Study of Characteristics differences between effective and ineffective Hr. Sec. Schools. (Ph.D. Thesis)
18. Hindi Ph.D. Thesis "Bhartendu Yug Sahitya Mein Rashtriya Bhavana".
19. Higher Secondary School Teachers in Varanasi City (Ph.D. Thesis)
20. A Study of the Achievement related Motivation and Education Achievement among Secondary School Pupils (Ph.D. Thesis)
21. An Experimental Investigation into Typographic Dimensions Affecting Readability of Hindi Book Print (Ph. D.)
22. An Analysis of Certain Dimensions of Creativity (Ph. D. Thesis)
23. Reduplication in Hindi : A Generative Semantic Study (Ph.D. Thesis)
24. Ph.D. Thesis "Interaction Analysis, Micro-Teaching and Modification of Teacher Classroom Behaviour".
25. Ph.D. Thesis "An Enquiry into the Causes for the Superiority of Xth Standard Public Examination Results in other areas of Karnataka State."

Dr. Kamla Arora,
Reader, D.T.E.,
NCERT.

Dr. (Smt.) Pushpa Thureja,
B. Block, B. Pocket, Flat,
No. 2-F, Janakpuri, New Delhi.

Dr. (Km.) Asha Malhotra,
Plot No. 36, Sampurnanand
Colony, Sigria,
Varanasi.

Dr. P. P. Gokulanathan,
North Eastern Hill
University, Lower Lachomiere,
Shillong—793001.

Dr. B. S. Bhagoliwal
A—1/80, Safdarjang Enclave,
New Delhi.

Dr. S. K. Jha, Prof. & Head
Nagpur University,
Amravati Road, Nagpur.

Dr. Anvita Abbi,
J. N. U., New Delhi.

Dr. Lal Pratap Singh,
Depft. of Education,
Allahabad University,
Allahabad.

Dr. B. G. Barki,
Lecturer in Education,
St. Joseph Teachers
College, Mysore-570012.

1	2	3
26.	Educational Choices and Vocational Preferences of Secondary School Students in Relation to Environment Process ...Variables. (Ph. D. Thesis).	Dr. J. S. Grewal, Reader, RCE, Bhopal.
27.	The Socio-economic and political factors in the development of education in British India during 1921-1947 (Ph.D. Thesis)	Dr. S. K. Saini, Lecturer, DESH, NCERT.
28.	National Geographer (Publication Grant of Journal).	Shri R. C. Tewari, Allahabad Geographical Society, Allahabad.
29.	The Growth of Logical Thinking in Science during adolescence (Monograph).	Prof. N. Vaidhya, Regional College of Education, Ajmer.
30.	The single teacher-school in rural education and development (published by NCERT)	Shri D. V. Chickermane, Director, (Gagoti) Maharashtra.

Annexure II

DEPARTMENTAL RESEARCH PROJECT (COMPLETED) IN 1979-80

<i>S. No.</i>	<i>Title of the Project</i>	<i>Name of the Department Unit Regional College of Education</i>
1	2	3
	Educational Administration and Planning	
1.	Student Reaction to Some Problems of Education. : A Follow-up Study.	Examination Reform Unit
2.	Fourth All-India Educational Survey.	Survey and Data Processing Unit
	Curriculum	
3.	Compilation and Linguistic Analysis of Hindi Vocabulary of Children of Primary Classes Belonging to Hindi-speaking Areas.	Department of Textbooks
4.	Comparative study of standards as reflected in the syllabi of Science and Mathematics, of the States where there is public Examinations at the end of Class X.	Department of Textbooks
5.	Position of History Teaching in Delhi Schools at the Higher Secondary Stage.	Department of Education in Social Sciences and Humanities
6.	Use of living organisms in school (An Investigatory Project to Develop a Handbook for Classroom Teacher).	Department of Education in Science and Mathematics
7.	Resource and Problems (An Investigatory Project to Develop a Handbook for Classroom Teacher)	Department of Education in Science and Mathematics
	Educational Psychology	
8.	Development of Psychological Tests for Selection of Police Officer.	Examination Research Unit
9.	Evaluation of DTA Products and Prototypes.	Department of Teaching Aids

1	2	3
10.	Non-verbal Test of Intelligence.	Examination Research Unit
11.	(a) A Study of the Extent of Utilisation of School Broadcasts in Delhi	} Centre for Educational Technology
	(b) A Study of the Extent of Utilisation of School T.V. Programmes in Delhi.	
12.	Status of Audio-Visual Education in India.	Department of Teaching Aids
13.	Developing a Library of Audio-Visual Tapes.	Centre for Educational Technology
Measurement and Evaluation		
14.	Studies in Science Talent	Examination Research Unit
Special Education		
15.	Populational and Education Policies : A Country Case Study of India.	Department of Education in Social Sciences and Humanities
16.	A National Baseline Survey in Population Education.	Department of Education in Social Sciences and Humanities
Teacher Education		
17.	A Study of the Problems Bearing on Teacher Education for 10+2 Curriculum with Reference to one State.	Department of Teacher Education
18.	Case Studies of Teacher Education Institutions (Elementary and Secondary).	Department of Teacher Education
19.	A Study of In-service Needs of Secondary Teacher-Educators in India.	Department of Teacher Education
Methods of Teaching		
20.	National activities in educational innovations comprising :	} Policy Planning and Evaluation Unit
	(a) Inter-Project, Inter-Institution Study Visits of Educational Workers.	
	(b) National Directory of Educational Innovations.	

Annexure III

(On-going)

EXTERNAL RESEARCH PROJECTS SUPPORTED BY ERIC (1979-80)

<i>Sr. No.</i>	<i>Name of the Project</i>	<i>Name of the Principal Investigator and address :</i>
1	2	3
Educational Administration and Planning		
1.	Indian Pubic Schools—A Study of Their Growth and Development.	Dr. R.B. Mathur (now retired) University of Lucknow, Lucknow.
2.	Study of the Problems and Pattern of Functioning of Single-Teacher Schools in Rajasthan.	Dr. P.L. Verma, Research Officer, Directorate of Primary and Secondary Education, Bikaner.
3.	A Case Study of Sikshaniketan : A Work-Oriented Rural Institution in the District of Burdwan.	Prof. H.B. Majumdar, Vidya Bhavan, Vishwa Bharati, Shantiniketan (W.B.)
4.	A study of the incidence and factors responsible for dropping out of children from Municipal and local authority schools in greater Bombay and Thana Distt. from Stds. I to VII during the last 3 years and coming 1 year.	Dr. (Mrs.) Madhuri R. Shah, Chancellor, S.N.D.T. University, Bombay.
5.	The School Complex.	Prof. J.B.P. Sinha, A.N.S. Institute of Social Studies, Patna-800001.
6.	Patterns of Student Participation in the University Administration.	Dr. R. Upadhyaya, Reader in Education, B.H.U., Varanasi.
7.	Policy of Non-detention in Andhra Pradesh: An Evaluation Research.	Dr. Uday C. Desai, Member of Faculty, Administrative Staff, College of India, Bella Vista, Hyderabad-500475

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| 8. | Educational Income Relationships: A Case Study of Alumni of Selected W.B. Education Institution. | Dr. K. Mukerji,
Prof. & Head of Deptt.,
Faculty of Commerce, University,
of Calcutta |
| 9. | Economics of Primary Education in Andhra Pradesh. | Sh. B. Rajaiah, Lecturer,
J.V.R. Government College,
Sethupalli
Khamman Distt. |

Educational Efficiency

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| 10. | A Study of Properties of Learning Environment of Achieving Classes of Rajasthan Schools. | Dr. Ram Pal Singh,
Jai Lal Institute of Education,
Ajmer. |
| 11. | Factors compelling dropouts in Haryana (A Comparative Study with Special Reference to Girls and Children of Weaker Sections in Rural and Urban Area in the Age group 6 to 14) | Dr. V.K. Kohli,
Principal,
S.C.E,
Ambala City, Haryana. |

Curriculum

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| 12. | Graded Grammars in Dravidian for High School Classes. | Dr. V.I. Subramanian,
University of Kerala,
Trivandrum. |
| 13. | Workshop on Introducing Social, Moral & Spiritual Values in School Curriculum. | Sh. N.K. Sanyal,
Honorary Secretary,
Sri Aurobindo Centre,
Adchini,
New Delhi. |
| 14. | Development of Educational Programme in Science for Upper Primary Level Based on Environmental Approach. | Dr. B.P. Joshi, Director,
State Institute of Science
Education, Udaipur. |
| 15. | Research In Physics Education using Non-formal Methods. | Sh. K.N. Singhal, Deptt. of
Physics, Udaipur University,
Udaipur. |
| 16. | Curriculum Development in Social Sciences with Reference to the Evolving of Methodology of Teaching History. | Prof. N.B. Dasgupta,
Nikhil Banga Sikshan
Mahavidyalaya,
Bankura (W.B.). |

Universalization of Primary Education

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| 17. | Investigation in Non-formal Science Education and Development of Inexpensive Resource Materials. | Prof. A.M. Ghose, Indian
Association of Extra Curricular
Scientific Activities, 93/1
Acharya Prafulla Chandra Rd.
Calcutta. |
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18.	A study of effectiveness of some important measures adopted for increasing enrolment and attendance in primary schools of Rajasthan.	Sh. B.L. Vyas, State Institute of Education, Udaipur (Rajasthan).
19.	Problems of education of the weaker sections of society with specific reference to the weaker sections in Baroda District Gujarat State.	Prof. D.B. Desai, M.S. University of Baroda, Baroda.
Educational Psychology		
20.	Study of Patterns of Parental Preferences in Relation to Adolescent Personality, Achievement and Adjustment.	Shri A.K. Gupta, Director, Model Institute of Education and Research, B.C. Road, Jammu-110001.
21.	Psychological development and learning in young children in poverty and effects of interventions.	Dr. (Mrs.) Sushila Singhal, and Dr. (Mrs.) Prabha Ramlingaswami, J.N.U. New Delhi.
22.	Children's Judgements of Personal Happiness.	Prof. Ramadhar Singh, Prof. of Psychology, Indian Institute of Technology, Kanpur-16.
23.	Constructing a battery of psychological test and establishing profile norms.	Smt. Usha Khire, Janna Prachchachini, Deptt. of Psychological Research and Testing, 510, Sadashiv Peeth, Pune.
24.	Problems, Aspirations, Values and Personality Pattern of Tribal Students of Mirzapur.	Dr. S.S. Srivastava, Lecturer, BHU, Varanasi.
25.	Interaction of Jensen's Level I and Level II Abilities with Different Socio-economic Strata, Harijans and Tribal Groups in Gujarat.	Prof. K.G. Desai, University School of Psy. Cholegy, Gujarat University, Ahmedabad.
26.	Reading Habits among Primary School Students in Urban and Rural West Bengal.	Dr. Partha Chatterjee Eastern India Centre for Mass Communication Studies, Calcutta.
27.	A study of adjustment: Problems of the SC and ST Students in Residential Schools of Rajasthan.	Dr. R.R. Singh, Lecturer, Vidya Bhawan, C.S. Teachers College, Udaipur (Raj.)

Measurement and Evaluation

28. A study of effectiveness of using educative toys in teaching Science to Vth Std. over the traditional methods. Shri Shankarnarayana Sastry, Teacher Educator, Govt. Teachers' Trg. Institute, Hassan.
29. The survey of Kaval towns with regard to the availability and use of teaching aids in schools. Shri L.P. Bhardwaj, (Retired) Principal, B-330, Sector-B, Mahanagar, Lucknow.

Sociology of Education

30. Identification of Selection Criteria for National Talent. Dr. (Miss) Sudesh Gakhar, Reader in Education, Punjabi University, Chandigarh.
31. Construction and Standardisation of Primary School Achievement Tests (PSAT) for Pupils of Gr. VII in the State of Gujarat. Dr. Jayantibhai H. Shah Reader in Education, P. G. Centre in Education, Bhavnagar.
32. Achievement by Children in Primary Schools. Dr. S.N. Singh, Dean, Faculty of Education, BHU, Varanasi.

Special Education

33. A Study of the problems and needs of secondary students living in the slums of Varansi. Dr. Surya Nath Singh, B.H.U. University, Varanasi.
34. A Sociological Study of Students Unrest : Causes and Remedies. Dr. S.K. Srivastava, Deptt. of Sociology, BHU, Baranasi.
35. A Study of Factors Determining Utilization of Educational Facilities by Muslim Community of Borsad Town and Their Educational Needs. Dr. Punambhai Patel, Principal, Shri R.P. Ananda College of Education, Borsad.
36. A Study of Educational Backwardness of the S.C. Students and a Need-oriented Plan for their Development. Dr. R.P. Singh, Reader, Deptt. of Education, Patna University, Patna.
37. Identity Formation of Scheduled Caste Students. Dr. (Mrs.) Suma Chitnis, Tata Instt. of Social Sc., Sion-Trombay Rd., Deonar, Bombay.
38. Study of some of the adjustment problems of school-going scheduled caste adolescents with respect to their sex intelligence and socio-economic status. Dr. S. S. Chauhan, Head, H. P. University, Simla.

Teacher Education

39. Bibliography of Education of Women in India 1850-1975. Prof. (Mrs.) Madhuri R. Shah, Vice-Chancellor, S.N.D.T. Women's University, Bombay.
40. Problems of Girls Studying in Co-Educational Institutions of Varansi Region. Dr Kamala Rai, Lecturer, B. H. University, Varanasi.
41. Achievement of tribal students in relation to their intelligence, motivation and personality. Dr. Tribhuwan Singh, Lecturer, B.H. University, Varanasi.

Methods of Teaching

42. A Study of the Effectiveness of Pre-service Teacher Trg. Programme at Elementary Level in Rajasthan. Shri B.L. Vyas, Director, S.I.E., Udaipur.
43. Analysing Teaching Behaviour of In-service and Pre-service Teaching through Interaction Analysis Procedures. Prof. K.P. Pandey, H.P. University, Simla.
44. A psychological study of work, adjustment and teaching success of primary school teachers. Prof. S. Naranayana Rao, Prof. of Psy, S.V U. College, Sri Venkateswara University, Tiupati.
45. A Study of Teaching Competency of Secondary School Teachers. Dr. B.K. Passi, Prof. & Head of Deptt. of Education, Indore University, Indore.
46. Working conditions and attitudes of teachers in single-teacher schools. Dr. M. G. Mali, Principal, A.J.A.M., Kohlapur.
47. The Diagnosis of Language Errors and Programme of Remedial Teaching in Sanskrit. Shri P.C. Jain, Institute of Hr. Studies & Research, B 90, Ganesh Marg, Bapunagar, Jaipur.
48. The Diagnosis of Language Error and Programme of Remedial Teaching in Hindi. Dr. L.K. Oad, Principal, Banasthali Vidyapeeth College of Education, P.S. Banasthali Vidyapeeth,

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49. Development of effective Teaching Methods for School Subjects—A Statistical Investigation into the Problems.	Shri K.S. Gupta, Head of the Deptt. of Education, Calcutta University, Calcutta (W.B.).	
50. The Determination of Communicability in New Hindi Poetry from the Point of the Upper Secondary and Upper Graduate Classes.	Dr. (Mrs.) N. Jain, Reader, Hindi Deptt., Delhi University, Delhi.	
51. Programme learning as function of anxiety under different motivational conditions.	Sh. Devendra Srivastava, Lecturer, Dayanand Subhash National College, Unnao (U.P.).	
52. To study the effects of noise on the teaching-learning process (focussing on attention, concentration and retention), with special reference to the calculation of its optimum range in the maintenance of school discipline.	Shri N.D. Nandurdikar, Chembur Comprehensive College of Education, Chembur Naka, Bombay-71.	
53. Innovations in learning methodology to supplement lecturing in the first and second year of B.Sc. in Physics.	Dr. R.G. Takwale, (Now V.C., Pune University) Deptt. of Physics, University of Poona, Ganesh Khind, Poona-7.	
54. Establishing norms for speed in reading Tamil in Stds. 6 to 8.	Prof. T.R. Soundaraja Rao, Edu. Research, Shri Rama- Krishan Mission Vidyalaya Teachers College, Coimbatore. (Madras).	
55. Preparing a documented history of the Sevagram experiment.	Shri Radhakrishna, Gandhi Peace Foundations, New Delhi.	
56. Experimentation in methods for improving instruction in training colleges.	Dr. S.P. Kulshreshtha, Karanpur, Dehradun (U.P.)	
57. Teaching of Bengali in Classes VII & VIII in W. B. to those whose mother tongue is not Bengali.	Dr. Subas Chatterjee, Reader, College of Arts, Calcutta University, Calcutta.	
58. Science Teaching in Primary Schools—A Training Programme.	Dr. K. Adinarayana, Lakshmi Teachers Trg. College, Gandhigram, Madurai, (Tamil Nadu).	

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59.	Establishing Norms for Speed and Comprehension in Reading Telugu in Standards 3 to 8.	Prof. R. Srinivasa Rao, Sri Venkateswara University, Tirupati.
Vocationalization of Education—Work Education		
60.	Introduction of Work Education in Primary School—A Pilot Study.	Prof. S.C. Das, Director, S.I.E., Bhubaneswar, (Orissa).
61.	Vocationalisation at the Hr. Secondary Stage of 10+2+3 Pattern of Education.	Dr. (Mrs.) J. Kothai, Pillai Madurai University, Madurai.
Publication Grant		
62.	An Investigation into Organisation Climate of Secondary Schools of Rajasthan. (Ph. D. Thesis).	Dr. Moti Lal Sharma, Reader, Department of Education, South Gujarat University, Surat.
63.	A Study of Values and Vocational Preferences of the Intermediate Class Students in U.P. (Ph. D. Thesis).	Dr. P.C. Katiyar, Reader, Deptt. of Education, Indore University, Indore.
64.	Education & Politicization (Ph. D. Thesis).	Dr. E. Haq, J.N.U., New Delhi.
65.	Interest Attitude and Personality Factors as Predictors of Scholastic Achievement. (Ph. D. Thesis).	Dr. M.B. Pande, University College of Education, Bhagirath 3, Farmland, Ramdaspath Nagpur.
66.	Concept of Speed Development-cum-Training Study. (Ph. D. Thesis)	Dr. (Mrs.) U. Bevli, Reader, C.S.U., NCERT.
67.	The problems of over-under and norms achieving college students : final report of ERIC supported project (Pub. grant).	Prof. S.B. Adaval, University of Allahabad, Allahabad.
68.	Comparative Study of the Morphology of Magal and Bhoujpuri (Ph. D. Thesis).	Dr. L.P. Sinha, Kam'la Bhawan, Club Road, Aurangabad.
69.	A Study of the Characteristics of Innovatives to Teachers of Sec. Schools in the State of Gujarat (Ph. D. Thesis).	Dr. K.M. Shah, Asstt. Lecturer, M. B. Patel College of Education, Vallabh, Vidyanagar.
70.	A Study of Some of the Social Psychological Factors Associated with Vocational Development (Ph. D. Thesis),	Dr. B. Roy, E.P. Unit, N.C.E.R.T.

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71. A study of the methods and materials employed for teaching reading in Eng. Primary Schools and its relevance to India (Ph. D. Thesis).	Dr. R.P. Srivastava, Jamia Millia Islamia, New Delhi.	
72. Tulsi Krit Gitavali ka Bhasha Shastriya Adhyayan Avam Vigyanic Pad Path. (Ph. D. Thesis).	Dr. (Mrs.) Saroj Sharma, Banasthali Vidyapeeth-22.	
73. A Study of Academic Performance with Reference to Some Personality Perception. (Ph. D. Thesis).	Dr. S.K. Narang, Principial, Central School, Port Blair.	
74. A Study of School Climate as a Function of Personality of School Personnel and Pupil Control Ideology. (Ph. D. Thesis).	Dr. K.A. Gandhi, R.P. Anand College of Education, Borsad (Gujarat).	
75. Educational Opportunity for the children of Urban Slum in Delhi (Ph. D. Thesis).	Dr. (Mrs.) S.P. Patel, Reader, Extension Unit, NCERT.	
76. Potentials of Distance Teaching—A Study of the Correspondence Course for Small and Marginal Farmers of Punjab State (Ph. D. Thesis).	Dr. G.S. Saini, Punjab Agricultural University, Ludhiana	
77. Developing Instructional Strategies for Teaching Hindi as a second language of the Urdu medium students of Delhi on the basis of Identification of Variables involved in the different aspects of Hindi attainment of Urdu medium Children (Ph. D. Thesis).	Dr. Jaipal Singh Tarang, Jamia Millia Islamia, New Delhi.	
78. A Study of the Personality Correlates of Creative Children of 15 plus Studying Science Subject (Ph. D. Thesis).	Dr. Bidar Singh, Jai Lr. Govt. College of Education, Bhopal.	
79. Science Journal titled "OOHASAKTI" in English, Hindi and Telugu.	Shri B. Yellaman Daiah, Shri Vivekananda Vidya Parishath, Nellore-524002.	
80. A Study of Some Factors Affecting Students Involvement in Students (Ph. D. Thesis).	Dr. (Mrs.) Asha Bhatnagar, Lecturer, EVGU, NCERT,	

Annexure IV

DEPARTMENTAL RESEARCH PROJECTS (ON-GOING—1979-80)

<i>S. No.</i>	<i>Title of the Project</i>	<i>Name of the Department/ Unit/Regional College of Education</i>
1	2	3
Educational Administration and Planning		
1.	Development of a Model for Forecasting Teacher Manpower Requirements in a State.	Department of Teacher Education.
2.	Development of Norms for Secondary Teacher Education Colleges.	—do—
3.	A Longitudinal Investigation into the Process and Characteristics of a Dropout.	Department of Educational Psychology and Foundations of Education.
4.	A Study of the Reasons for Non-enforcement of Conditions of Affiliation laid down by the Universities.	Department of Teacher Education.
5.	Assessment of School Environment.	Examination Reform Unit.
Curriculum		
6.	Development of Learning Material for the Non-formal Education of the Girls in the Rural Areas in the Age Group of 11- 14.	Department of Educational Psychology and Foundations of Education.
7.	Different Forms of Hindi Literature included in Hindi Textbooks for Secondary Classes : An Investigation into their Effectiveness from the Standpoint of Instructional Objectives and Interest of the Children.	Department of Textbooks.
8.	Importance of Illustrations in Geography Textbooks.	—do—
9.	A Study of Material in History Textbooks which (i) jeopardizes the National Integration, (ii) promotes National Integration.	—do—

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10.	A Study of Evolution of Textbook and its Role in Formal Education in the Concept of Changing Society (Ancient to Modern Period with Special Emphasis on Post-Independence period).	Department of Textbooks.
11.	Linguistic Analysis and Description of the Phonological Variations in Standard Hindi.	Department of Education in Social Sciences and Humanities.
12.	Verb Form Frequency Count in Hindi.	—do—
13.	Development of Criteria for Electing a Stream and Courses within a Stream at Higher Secondary Stage.	Department of Educational Psychology and Foundations of Education.
14.	Experimental Project to Develop Need-based and Community-oriented Self-learning Instructional Materials in Biology for the Elementary Level Rural Pupils of the Formal System and Dropout Children at this Stage.	Department of Education in Science and Mathematics.
15.	Investigations leading to the Development of Model Instructional Materials for Secondary and Higher Secondary Levels in Life Science for the Guidance of Book Writers.	—do—
16.	To develop the Laboratory Course in Physics Based on 'Open-ended Experiment' for Secondary Stage.	—do—
17.	Influence of Nutritional Awareness of Mothers on the Nutritional Status of Primary Schools Children in the Union Territory of Delhi.	—do—
18.	Identification and Gradation of Map Skills to be Introduced at the Entire School Stage.	Department of Education in Social Sciences and Humanities.
19.	A Graphic Analysis of the Devanagari Script as Used for Reading and Writing Hindi.	—do—
20.	Effective use of School Curriculum and their Sub-studies.	Department of School Education.
21.	Contribution of Themes of Various Categories included in Language Textbooks towards the Achievement of Instructional Objectives of the Language.	Department of Textbooks.

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22.	A study in the Comprehensibility of the Language used in Science and Social Science Textbooks at Primary level.	Department of Textbooks
23.	Ecological Studies of the Surrounding Aquatic Realm.	Regional College of Education, Ajmer.
24.	Project Environment.	Regional College of Education, Bhopal
25.	An Ecological Study of Seasonal Variations of Algal and Fungal Flora of the Lakes in Bhopal.	—do—
26.	Developing Source Materials for Teachers working in Secondary Schools and Training Colleges to Inculcate Socialistic and Democratic Values and Attitudes.	Regional College of Education, Bhopal.
27.	Involvement of the B.Ed. (Agr.) One Year Students in the Preparation of Instructional Material in Technical Agr. for the Higher Secondary Schools (+2) Vocational Agricultural Courses.	—do—
28.	Sequential Attainment of Concept in Chemistry through periodic Table at the Secondary Stage.	Regional College of Education, Bhopal.
29.	The Role of Steroids and other Related Compounds in Evolution and Spawning of Fresh Water Fish.	Regional College of Education, Bhubaneswar.
30.	Corrosion of Steel and other Metals in Bhubaneswar Atmosphere.	Regional College of Education, Bhubaneswar.
31.	Molecular Thermodynamics and Viscous Flow Properties of Liquid Mixtures and Polymer Solutions.	Regional College of Education, Bhubaneswar.
32.	A study in suitability of the present curriculum and teaching materials in Social Sciences which have been prepared by the Council for different groups of the learners viz. (i) regular school goers, (ii) first generation learners and (iii) tribal learners.	Department of Education in Social Sciences and Humanities.
33.	Survey of the methods of teaching Sanskrit in Indian Schools.	Department of Education in Social Science and Humanities.

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34.	Need-based, ecologically determined and change-oriented system of education for community—a nomadic tribe.	Women's Education Unit.
35.	Development of plantbased experiments for Secondary and Higher Secondary levels using the environment and local resources.	Department of Education in Science and Mathematics.
36.	A Study into the functions of the basic education—Nai Taleem.	Department of School Education.
37.	Standardisation of Techniques for Isolation of Protoplast for Cell Physiological Demonstration and Cine Biology Teaching at High School Level.	Department of Education in Sciences and Mathematics.
Educational Psychology		
38.	A Diagnostic Investigation into the Formation, Development and Conservation of Mathematical Concepts in Students at Primary level in Rural and Urban Areas of South Indian States.	Regional College of Education, Mysore.
39.	Relationship between lesson kinetic structures and learning outcomes in school science.	Regional College of Education, Mysore.
40.	Measuring Attitudes of School Students Developing a Suitable Methodology.	Regional College of Education, Bhubaneswar.
41.	Development and Persistence of Analytic Ability in Culturally Different Elementary School Children and Their Effects on Certain Cognitive Performances.	Regional College of Education, Bhubaneswar.
42.	A Study to test the Efficacy of the Technique of Transcendental Meditation in Relation to Academic Performance, Creativity, Intelligence Growth Rate, Pupil Expectation Discrepancy and Adjustment.	Department of Educational Psychology and Foundations of Education.
43.	A Study of the Nature and Function of Group Process to Motivate Children.	—do—
44.	Cognitive Development of Indian Children: A Longitudinal Study.	—do—
45.	Explorations In Optimising Learning Science in School.	—do—
46.	Social and Cultural Change and Changes In the Creative Functioning of Children.	Examination Research Unit.

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47.	Serum Urate Concentrations, Intellectual Style and Personality.	Examination Research Unit.
48.	Utilization of Audio-visual Media at Teacher Training Level in the Country.	Department of Teaching Aids.
49.	A Study of the Motivafion of Correspondence Course Students.	Department of Educational Psychology and Foundation of Education.
50.	Research on First Generation.	—do—
51.	Developmental Norms Project 5-11 years Normative Study.	—do—
52.	Determination and Development of Schemes of Thought in Science during Adolescence.	Regional College of Education, Ajmer.
53.	A Study of the Perceptions of Secondary School Learning Environment by Students, Staff and Administrators.	Regional College of Education, Bhopal.
54.	To develop instructional material for promotion of Creative Thinking and to determine its effectiveness.	—do—
55.	Standardisation of California Psychological Inventory for Teachers.	Regional College of Education, Bhopal.
56.	Development of measuring tools, observation schedule and rating scale for evaluating working with the community.	Department of Teacher Education.
57.	Improving cognitive functions and classroom behaviour of elementary students by contingency management.	Department of Educational Psychology and Foundations of Education.
58.	A Study of Creativity of Personality Aspects of 1500 scholars appearing in NTS Exams. in 1977.	National Talent Search Unit.
Educational Technology		
59.	A Study of Primary School Television Programme of Delhi Doordarshan.	Centre for Educational Technology.
60.	Monitoring of Radio Programmes of Young Children Broadcast from AIR Stations, Delhi and Patna.	-do-
61.	An Indepth Follow-up Study of the National Talent Search Awardees for the year 1971-75.	National Talent Search Unit.

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Measurement and Evaluation

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| 62. | A study to determine the impact of reading on the achievement of pupils in different school subjects. | Department of School Education. |
| 63. | Measuring Achievement Responsibility in Elementary School Children and a programme for Improving Certain Non-intellective Variables. | Regional College of Education, Bhubaneswar. |
| 64. | An Evaluation of the Comprehensive Internal Assessment Scheme adopted by the Board of Secondary Education, Rajasthan, Ajmer, for Classes IX, X and XI. | Examination Research Unit |
| 65. | Research & Development in Talent Search. | Examination Research Unit. |
| 66. | Measurement of Affective Outcome of Primary School Education. | Examination Research Unit. |
| 67. | An Intensive Study of Accomplishments of National Science Talent Scholars. | National Talent Search Unit. |
| 68. | Research and Development in Talent Search. | -do- |
| 69. | Studies in Science Talent. | -do- |
| 70. | National Test Development Library. | Educational Psychology Unit. |

Sociology of Education

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| 71. | Parental Child Rearing Practices and Value Orientation as Underlying Dynamics of Study Habit of Elementary School Children Income Group Families. | Regional College of Education, Bhubaneswar. |
| 72. | A Study of Social Cohesion in Colleges of Education and its Relationship to Efficiency. | Department of Teacher Education. |
| 73. | To Study the Effect of Socio-cultural Deprivation on the Educational Development of Rural Children in the Age Group 6-11 Years. | Department of Educational Psychology and Foundations of Education. |
| 74. | A Feasibility Study of Home Intervention Programme for the Socially Disadvantaged Children in Classes I and II. | -do- |
| 75. | Relevance of Traditional Youth Dermitories to Non-formal Education in Tribal Areas in India. | Department of School Education |

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76. Socio-economic Survey for Developing a Curriculum for Continuing Education of Weavers.		Centre for Educational Technology.
Special Education		
77. A Study of the Awareness and Reaction of Teacher towards the Introduction of Population Education in Schools.		Department of Educational Psychology and Foundations of Education.
78. A Study of the Attitude of Teachers and Parents towards the Introduction of Sex Education in Schools.		Department of Educational Psychology and Foundations of Education.
79. An Exploratory Study on the Interest Concerns and Problems of School Students in the Field of Health.		-do-
80. Review of the Studies in the Field of Population Education.		-do-
Teacher Education		
81. Identification of Deficiencies and Difficulties in Secondary School Teachers and finding Ways and Means to help them.		Regional College of Education, Mysore.
82. Teacher Education Programmes as perceived by Trained Working Teachers of the Eastern Region.		Regional College of Education, Bhubaneswar.
83. An Investigation into the implementation of recommendation of Secondary Teacher Education made by the Education Commission (1964-66).		-do-
84. A Survey of Teachers under Training in SSCC (1976) in the RCE, Bhubaneswar.		-do-
85. School Teachers: Job Satisfaction v. Study of Values.		-do-
86. Teacher's Personality Components as Determinants of Job Satisfaction.		-do-
87. Development of Tools for Admission to Teacher Education Institutions.		Department of Teacher Education.
88. Development of a Tool for Supervision and Evaluation of Student-Teaching and other Practical Work in Colleges of Education.		Department of Teacher Education.
89. Planning and Designing of Educational Research: A Handbook for Teacher-Educators.		Department of Teacher Education.

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90.	Effect of Classroom Behaviour : Training on Classroom Questioning Behaviour of Teacher.		Department of Teacher Education.
91.	A Study of the Role Expectations of the Primary and Secondary School Teachers Working with Community with a view to evolving Correspondence Course for Teacher Education both at Primary and Secondary Levels.		—do—
92.	Mobility Patterns and Professional Commitment among Higher Secondary School Teachers.		—do—
93.	Identification of Area of Deficiency in Secondary School Physics Teachers and finding Ways and Means to Help Them.		Department of Education in Science and Mathematics.
	Methods of Teaching		
94.	A Study of the Innovative Practices Prevalent in Schools in the Southern Region.		Regional College of Education, Mysore.
95.	Know the Plants Around You.		Regional College of Education, Bhubaneswar.
96.	Know Your Food—Fishes and Their Nutritive Value.		Regional College of Education, Bhubaneswar.
97.	Systematic Studies in the Fauna in and around Bhubaneswar for Development of Museum.		—do—
98.	Know the Life Between the Tide Marks.		—do—
99.	Know About the Helminth Parasites of Man with Special Reference to Filariasis.		—do—
100.	A Study of the Methodologies of Teaching Various Subjects.		Department of Teacher Education.
101.	A Study of Teaching Competencies for Developing Cognitive Processes in Pupils.		—do—
102.	A Study of the Effectiveness of Two Methods of Teaching Population Education in School.		Department of Educational Psychology and Foundations of Education.
103.	An Experimental Study of the Effectiveness of Different Strategy of Teaching Skills Acquired by the Students-Teachers through the Technique of Micro-teaching.		Department of Teacher Education.

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104.	A Study of Innovative Practices in Elementary and Sec. Teacher Education.	Department of Teacher Education.
105.	Evaluation of Personalised System of Instruction (Ketter Plan) in Mathematics at Class VII level.	Examination Reform Unit.
106.	The Effect of Teacher Led and Three Other Classroom Approaches of Teaching Population Education on Classes IX and X of the 10+2 Pattern on the Knowledge, Attitudes and Beliefs about Population Explosion In India.	Regional College of Education, Bhopal.
107.	An Integrated Approach to the Study of Social Sciences in Schools.	Department of Education in Social Sciences and Humanities.
108.	Implementation of a Personalised System of Instruction in Physics at the Class XI or Ist year level.	Department of Education in Science and Mathematics.
109.	Survey of Different Methods and Techniques of Teaching English.	Department of Education in Social Science and Humanities.
110.	Survey of the Methods of Teaching Sanskrit in Indian Schools.	—do—
111.	Collection and Dissemination of Innovation Ideas in School Education.	Department of School Education.
112.	A Study of the Effect of Micro-Teaching Training Time and Effectiveness of Teachers Training College of Education.	Department of Teacher Education.
113.	Historical Survey of the Development of Teaching of History in the School since Independence.	Department of Education in Social Sciences and Humanities.
114.	A Study of Effect of Micro-teaching Training Time Effectiveness.	Department of Teacher Education.
Vocationalisation of Education—Work Education		
115.	A Survey and Cultivation of Edible Mushrooms as a Work Experience/Vocational Programme for the High/Higher Secondary Schools.	Regional College of Education, Bhubaneswar,

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116.	Culture and Breeding of Commercially Important Fish under Controlled Conditions.	Regional College of Education, Bhubaneswar.
117.	To Investigate the Effectiveness of Vocational Expolaration Programme at the Secondary Level for Vocationalization.	Department of Educational Psychology and Foundations of Education.
118.	Vocational Survey of Puri and Keonjhar Districts,	Regional College of Education, Bhubaneswar,

13

Extension and Working with States

The Council, in collaboration with State Governments, has been carrying out innovative programmes in various fields of education so that qualitative improvement in education at school stage can become a reality. For this purpose, the Council

has set up 18 Field Offices to cover all the States and Union Territories in India besides an Extension Unit at the NIE Campus.

These field offices have established active liaison between different constituents of the Council on the one hand and the State Departments of Education, State Institutes of Education, State Councils of Educational Research and Training, State Boards of Secondary Education, State Institutes of Science Education, University Departments of Education, Teacher Training Colleges/Institutes etc. on the other. The extension work undertaken by the Extension Unit and the field offices of the Council has been broadly in the areas of universalisation of primary education, non-formal education, Centres of Continuing Education, promotion of experimental projects in schools and National Science Talent Search Scheme.

A special mention is made of the State level toy competitions which were initiated by the Child Study Unit as a part of the programme for International Year of the Child 1979. The Field Units organised these competitions by inviting entries from the schools under their jurisdiction. These entries were screened by panel of judges and awards were distributed to the winners.

Exhibitions and seminars were also organised by the Field Units to mark this celebration. Organisation of science fairs continued to be a part of the Field Units' activities. They have given wide publicity in regard to such schemes like National Talent Search Scheme, Population Education, Seminar Reading Programme for Teachers and Teacher-Educators, New Teacher Education Curriculum etc.

A brief write-up on activities and programmes undertaken by the Extension Unit, Field Units in different States and Union Territories during 1979-80, is given below :

Extension Unit

Centres of Continuing Education Scheme : The scheme was launched in the year 1978-79 with a view to continuous updating of the professional competence of secondary school teachers and primary school teacher-educators working in different parts of the country. It was decided to establish 100 centres initially with the active collaboration of the State Govt./U.Ts. with their commitment to share 50% of the annual recurring expenditure of the centres established in their States/U.T.s. In the initial stage each, Centre is

expected to cater to the professional needs of the teachers/teacher-educators of three to four districts. A further expansion of the scheme so as to cover other districts will be considered after assessing the working of the 100 centres which have been sanctioned.

Till now the NCERT has approved the establishment of 97 centres on the request of the State Government/U.T.s, out of which approximately 70 centres have started conducting their programmes. The scheme has already made its impact in the States and as a result more and more requests from the State Governments are being received by the Council for establishing additional centres. The following are the States/U.T.s where the establishment of centres has already been approved by the Council :

Andhra Pradesh, Assam, Arunachal Pradesh, A & N Islands, Bihar, Chandigarh, Delhi, Gujarat, Haryana, Himachal Pradesh, Kerala, Karnataka, Maharashtra, Meghalaya, Manipur, Mizoram, Nagaland, Pondicherry, Sikkim, Tamil Nadu, Tripura.

Progress of the Project on Curriculum Development in Physical Education : The Project commenced in August 1978, as a sequel to the recommendations of the Review Committee on School Curriculum, headed by Shri Ishwar Bhai Patel. A document on 'Physical Education, A Draft Curriculum for Classes I to X' has been developed. It is under print. A draft of the Teachers' Guides on Physical Education for the primary stages, Classes I to V, has been prepared. It will now be discussed and then finalised.

A draft of a Teachers' Guide for organising physical education activities for children in Classes VI to X has been developed for the following activities

Combatives (Wrestling, Jambia and Judo)
Rhythmics
Calisthenics
Yogic Practices
Gymnastics
Athletics
Games
Health Education.

This will now be studied, scrutinised and finalised.

Monitoring of Non-Formal Education Programmes being run by the Field Advisers and Regional Colleges of Education : With a view to obtaining information about non-formal education centres, the Extension Unit sent a questionnaire to the Field Advisers. 15 Field Advisers sent the completed questionnaire regarding the status of non-formal education programme being run by them. The data has been tabulated and is being analysed for writing a report.

An Integrated Programme for Universalisation of Elementary Education : The Unit has identified, in collaboration with the Govts. of Bihar and Jammu & Kashmir, villages where programme of providing inputs in an intergrated manner will be tried out on experimental basis. The tools for survey have been developed, got printed and sent to concerned Field Advisers for organising the orientation of teachers in administration of these tools for the conduct of pre-survey.

Seminar Readings of Innovations in Schools : Under this programme the innovative description of practices adoped by the primary and secondary school teachers were received, screened and evaluated. The final evaluation was done by outside experts. 28 scripts submitted by primary school teachers and 20 by secondary school teachers were selected for the purpose of Cash Award of Rs. 500/- each and a certificate of merit. The national meet of the award winners was held in March 1980. The scripts will be printed for wider dissemination in the country.

National Intergration Project : The National Integration Project was launched in the year 1969 with a view to fostering the spirit of national integration among school children. The main activities under this programme consists of :

- Organisation of inter-state camps for teachers and student teachers,
- Production of supplementary reading materials
- Our India Project.

During the year 1979-80, four inter-state student-teachers, camps, two teachers' camps and one teachers' camp, exclusively on the educational use of puppetry, were organised. In these camps, about 300 students and 200 teachers participated and were oriented in pursuing national integration activities. A book of souvenir entitled 'Aao Hum Gayen' has been published. Besides this, manuscript on

Religious Prayers and Inspiring Passages has been prepared. Five puppet plays on socialism, secularism, democracy, languages and rural development were developed in the Delhi Puppetry Camp.

Non-Formal Education Centre (Experimental Project in a Slum Area of Delhi) : Experimental development of a non-formal education centre in a slum area of Delhi, which was started in October 1977, came to an end on March 31, 1980 when it was handed over to the Education Department, Municipal Corporation of Delhi. A curriculum and some instructional materials for the functional education of out-of-school children of slums were prepared in two working-group meetings organised during 1979-80. They will be finalised and published in 1980-81 along with the final report of the non-formal education centre.

Field Adviser's, Office, Andhra Pradesh

Universalisation of Elementary Education through Non-formal at Thipparthi, Nalgonda District : Like other Field Offices, this Office is also implementing the Non-Formal Education Project at Thipparthi. In the cluster of 10 villages about 400 students in the age group of 6-14 have been attending the centres. Ten field workers and one field supervisor are on the job. It has been the aim of the project that these centers should develop instructional materials including primers. For this purpose, in 1979, the Office conducted three workshops where the centre has also developed four primers to cater to four different types of children viz. rural boys, rural girls, tribal children and urban children. Simultaneously, Teachers' Guides have also been prepared. The draft edition of one of the primers has also been printed.

Experimental Project : Forty experimental project proposals were received and four were given financial assistance.

Office of the Field Adviser, Assam, Manipur, Arunachal Pradesh and Nagaland

Training Programmes : The Field Office organised the following programmes :

- A skill-based 4-day training programme for the Supervisors and Field Workers of our Non-formal Education Centres was held at Tamulpur. The training related mainly to the preparation of decorative articles from bamboo.

—The 20 Non-formal Education Centres, of Assam run by the Field Office and the R.C.E., Bhubaneshwar, were formally inaugurated on 17th June 1979 by Shri Ramani Barman, Minister of State for Education and Social Welfare, Assam. 1000 copies of Primer 1 and 25 copies of the Teachers' Manual were released for distribution. The Government of Assam accepted the UNICEF Project V for implementation in the State. The CAPE programme has also been initiated in the State through programmes organised at the BTCs at Chenga and Chabua.

—A one-week Orientation Programme in Community Leadership for Primary School Teachers of Sibsagar, Dibrugarh and Lakhimpur districts of Assam was held at the Post-graduate Training College, Jorhat, from February 25 to March 2, 1980, and was attended by 39 teachers in addition to a few interested observers.

Projects : An amount of Rs. 1,935/- was remitted to five Higher Secondary/High Schools where teachers had taken up research projects. These research projects have been completed and the reports submitted.

The Field Adviser has associated himself with a research project of the Board of Secondary Education, Assam, which seeks to prepare self-learning materials for English for the thousands of H.S.L.C. candidates who fail in English and are forced to appear as private candidates.

The Field Adviser has also initiated moves for participating research project on Error Analysis in English with tremendous feedback potential to be undertaken by the Board of Secondary Education, Assam.

Field Adviser's Office, Bihar

Fifty-two experimental project proposals were received. A sum of Rs.5,000/- was given as financial assistance to 18 selected Experimental Project.

In the 10 non-formal education centres in the Samastipur Block, 378 children have been enrolled. Out of these, 103 children belong to the Scheduled castes.

Continuing Education : There are 10 continuing education centres run in this State jointly by the State Government and the NCERT.

Field Adviser's Office, Delhi and Haryana

Extension Activities : The following Seminars/Orientation courses/ were organised during the year :

- (i) A six-day Orientation Course for principals and headmasters of elementary schools under the N.D.M.C. The areas covered were :
 - (a) Educational Technology
 - (b) Environmental Studies
 - (c) School Organisation
 - (d) Experimental Projects
 - (e) Health Education in Schools
 - (f) Socially Useful Productive Work
 - (g) Primary Curriculum Renewal
 - (h) Non-formal Education.

The Orientation Course was attended by 50 principals and headmasters and six resource persons.

- (ii) A six-day seminar-cum-workshop for revision of primary teacher training curriculum held at the Central Institute of Education, which was attended by 30 teacher-educators drawn from T.T.I., Daryaganj, Bal Bharati School, Manavsthal School and Bal Bhavan. The objective was to suggest suitable changes in the curriculum to make it socially relevant.
- (iii) Orientation course in the use of educational technology for science education held at Central Institute of Education, Delhi. The course drew about 40 participants from the Directorate of Education, Delhi, Science Consultants, Inspectors and science teachers. The following topics were dealt with during the course :
 - (a) Concept of Educational Technology
 - (b) Systems Approach in E. T.
 - (c) Systems Designing.
 - (d) Multi-media Approach for in-service training of science teachers.
 - (e) Development of plans for operation.

- (iv) A three-day seminar-cum-workshop on "Developing New Strategies for Non-formal Education" was held at Jamia Millia University for 40 field workers, specialists and educational administrators drawn from Delhi and Haryana. The seminar surveyed the existing methodologies and techniques in non-formal education and made recommendations for effective use of new strategies to speed up the teaching-learning process for age-group of 6-14.

Field Adviser's Office, Gujarat

Non-Formal Education Programme : A planning committee, with Shri H. N. Shah, Director, Primary and Adult Education, as Chairman, was formed. It consisted of representatives from State Institute of Education, Municipal School Board, Department of Social Welfare, Khadi Gram Udyog, Slum-Clearance Board, Harijan Social Welfare Centre and National Service Scheme. The plan was discussed in the meeting and a survey was conducted in various slum areas of the city. On the basis of the data received it was decided to establish 10 non-formal education centres in slum areas.

Experimental Projects : Financial help was extended to 14 experimental projects which were finally approved and financed.

The Unit also collaborated in :

- (i) Development of the core syllabus for S.U.P.W. for the Board of Secondary Education, Gujarat.
- (ii) Development of the syllabus for higher Hindi for Classes VIII, IX and X for the Board of Secondary Education, Gujarat.
- (iii) Development of the Syllabus in English both for the three year and five year stream of Board of Secondary Education, Gujarat.
- (iv) Participation in the State Level Educational Conference organised by the Board of Secondary Education, Gujarat, at Jhilia on SUPW.

Field Adviser's Office, Jammu & Kashmir

The office of the Field Adviser started a project on universalisation of elementary education through non-formal approach in eight villages : (Sumbal Anderkot, Wangipora, Nasbal, Shilwat, Rake

Shilwat, Shadipora, Asham, Nowgam). This two-year project was started in August 1979. There are about 300 students enrolled in all these non-formal centres.

Field Adviser's Office, Karnataka

Research Survey and Innovations : The report of the school survey conducted in connection with the experimental programme of non-formal education taken up by this Office in ten villages of Kanakpura Taluk, Bangalore District, has been finalised.

Developmental Work : Select reports of experimental projects completed by schools during 1977-78, 1978-79 and 1979-80 are being edited for printing and circulation.

Consultancy and Information Services : The Field Unit has provided consultancy to educational institutions and teachers' association of the State for the benefit of high school teachers.

Working with States : The Field Adviser has been associated by the Government of Karnataka with a number of committees and Boards such as the committee to examine the future set-up of +2 Stage, the Board of Pre-University Education, the Board of Teacher Education, the Committee for coordinating UNESCO activities, the Programme Advisory Committee of D.S.E.R.T. The Advisory-Committee of Extension Service Departments of R. V. Teachers College and M.E.S. Teachers College, Bangalore-3.

Asain Programme of Educational Innovation for Development : The Field Office assisted in organisation of the Sixth Consultation Meeting of the A.P.E.I.D. held at Bangalore, in April 1979. The Government of India, and the Ministry of Education, have acted as the host for this meeting, which was attended by participants from 15 countries and observers from a number of international and inter-governmental organisations.

National or State Conferences : The Field Adviser and the Assistant Field Adviser attended the XII Conference of Karnataka State Association of Teacher-Educators held at Manipal in February 1980. The Field Adviser also presented a paper on "Role of Teacher Education in Promoting Non-formal Education".

Universalisation of Primary Education : The Field Unit is closely associated with the implementation of the C.A.P.E. Project in

Karnataka. The Field Adviser directed a workshop on "CAPE" conducted at the Field Office during September 1979, for training officers from S.I.S.E.'s/S.C.E.R.T. of Karnataka, Andhra Pradesh, Kerala and Tamil Nadu. The Field Adviser was also associated with the training programmes organised by the D.S.E.R.T., Bangalore for training teacher-educators in writing 'Learning Episodes'.

Non-Formal Education: The Field Office implemented the experimental programme for universalisation of elementary education through non-formal system in ten vilages of Kanakpura Taluk in Bangalore District. As the follow-up of the survey, ten non-formal education centres were opened in ten villages with effect from January 1979. Each centre had on an average an atterdance of over 40 children in the age group of 6-14 who were not attending formal schools. Field workers were appointed to do the instructional programme in these centres and their work was regularly supervised by a field supervisor specially appointed for this purpose.

Adult Education : The Field Office rendered advisory assistance to the Directorate of Adult Education, Karnataka, and also to the Karnataka State Adult Education Council.

Publications Brought Out : Report of the non-formal education project undertaken by the Field Office is ready for print.

Field Adviser's Office, Kerala

Universalisation of Elementary Education Project : The year under report has witnessed strengthening of the 10 non-formal education centres. Ten field workers were given training in methodology of teaching with experts drawn from the Gandhi Smarak Nidhi, Department of Education, Kerala University and the State Resource Centre, Trivandrum. Multiple class teaching was successfully tried and found feasible.

This office collaborated with the State Institute of Education in organising a training course for the teachers of Lakshadweep at Ramavarmapuram.

Field Adviser's Office, Maharashtra

Research, Survey and Innovations : Two schools completed research/experimental studies under the scheme of assistance for experimental projects sanctioned by the Field Unit.

The following training programmes were undertaken directly or indirectly or in collaboration with various Departments :

Training course in teaching of History in collaboration with DESSH.

Two workshop in Environmental Studies in collaboration with DESM (Phases I and II).

Seminar on Moral Education.

Orientation courses in Vocationalisation of Education for Heads of Institutions in collaboration with VEU.

Training courses for Commerce (Vocational) teachers in collaboration with VEU.

Training course for Agriculture teachers of +2 Agriculture (Vocational).

Training courses for technical teachers of +2 Technical (Vocational).

Training courses in teaching of science for teachers of Goa.

Consultancy and information Services : The Field Unit has been associated with the following committees in the State.

High level committee on curriculum construction set up by the Government of Maharashtra.

State Board of Teacher Education.

Advisory Committee for Centres of Continuing Education.

In addition, the Field Advisory Committee through informal and formal contacts has been giving suggestions to Council on various programmes such as vocationalization of education at +stage, non-formal education programmes for tribal areas, teacher education etc.

Unversalisation of education and non-formal education : The work done includes a survey of 10 villages selected for the establishment of non-formal education centres.

Field Adviser's Office, Madhya Pradesh

Universalisation of Elementary Education : 10 non-formal education centres, taken up in the Development Block Multai, District Betul, continued to function during 1979-80. The enrolment of chil-

dren in these centres is 441 of which 61 belong to Scheduled Caste. During this year, on the basis of an evaluation, approximately 25% children have come up to the academic level of Grade III children. In all, there are 15 children who are preparing for the regular examination of Grade V.

To give encouragement to teachers, both at the secondary and primary levels, experimental projects have become a regular activity of the Field Office. This year, 15 such projects have been approved for which an amount of Rs. 3,500/- has been given as grant.

It has been possible to maintain close working relationship with all the 12 Extension Services Units located in 10 Govt. College of Education and 2 basic training Institutes.

Field Adviser's Office, Orissa

Programme of Universalisation of Elementary Education : The Field Office runs 10 centres of non-formal education on an experimental basis with the objective of supplementing the formal system. These centres have been opened in a cluster of 10 villages in the hilly area of Denagadi Block in Cuttack district, one in each village. Those have a large percentage of Scheduled Castes and Scheduled Tribes population. The children enrolled in these centres have made satisfactory progress in literacy, numeracy, health education and in SUPW. Twelve children from two centres have switched over to the formal system on acquiring the minimum standard of knowledge required. The Unit also convened a meeting of the 10 Field workers and the field Supervisors of the non-formal education centres at Patabali Centre in September 1979 to review the progress of the centres and to discuss the problems faced by the Field-workers in running the centres like the fall in attendance due to drought, the mobility of the parents to provide reading and writing materials to children and the quantum of contingency grant.

Research, Survey and Innovations : The Field Adviser was entrusted with a study on "Administration of Elementary Education in Relation to Universalisation Programme" in West Bengal by the Ministry of Education and Culture, Government of India. This study was conducted in nine educationally backward states with a huge backlog of non-enrolled children in the age group 6-14.

Developmental Activities : The Field Unit collaborated in the development of a revised syllabus for the primary level teacher

training institution in the State; the preparation of two booklets, viz. 'Measuring Length' and 'Measuring Area' in Oriya for the SCERT. The Oriya version of the booklet entitled "A Scheme of Assistance for Experimental Projects" was distributed among the Extension Services Centres.

Thirty-seven experimental project proposals from the secondary schools and two from primary schools were received. Fifteen of these secondary schools and primary schools were approved for the award of grant for Rs. 3,700/-. The Field Unit helped the State Advisory Committee for Centres of Continuing Education and in the review of the manuscript on Arithmetic for Class V under the programme of 'Curriculum Renewal Project' and numeracy.

Field Adviser's Office, Punjab

This office organised the following programmes/activities during this period :

- (i) A three-day discussion group of the Block Education Officers, senior teachers and headmasters of Simla District at Sunni to discuss the role of middle level educational administrators in improving the professional growth of teachers. The report of the discussion group entitled "School Improvement through Teachers' Development" has been brought out.
- (ii) A meeting of "Educational Forum" at Chandigarh to discuss the "Educative Atmosphere in a Family".
- (iii) Non-formal education programme has also been implemented in ten village of Barotee area of Himachal Pradesh but only one centre could be started there on account of scattered population in hilly track. Again, ten villages in Ferozepur district have been selected and the lists of dropout and non-enrolled children in the age group 6-14 years have been prepared.
- (iv) The Field Adviser's Office has been able to organise programmes on :
 - (a) Teachers' study circles functioning at Patiala, Solan, Jullundur and Chandigarh.
 - (b) Teachers' groups for exchange of educational materials at Solan.

- (c) Educational Thinkers Forum at Chandigarh, with the help and guidance of retired educationists and budding educators and educational administrators.
- (d) Inter-disciplinary discussion groups at Chandigarh to provide opportunities for exchange of experiences.

Field Adviser's Office, Rajasthan

Non-formal Education Centres : The Field Unit has taken up experimental project of non-formal education. The project is running in the Bassi Block of Jaipur district. At present seven non-formal centres are functioning. At four centres, the Hindi teaching is done through Radio Pilot Project of the Centre for Educational Technology, N.C.E.R.T., New Delhi.

Conference on Bassi Project of Non-Formal Education : The Field Unit organised a conference on Bassi Project of Non-Formal Education from the 25th March 1980 to 29th March 1980 at Lalgah (Bassi) to acquaint the State Officers about the progress of the project and to suggest measures to be taken to make the working of the non-formal centres more effective.

Workshop on Socially Useful Productive Work : After surveying the local resources and needs, a programme of SUPW for Gandhi H.S. School, Gulabpura, was developed. The school is ready to implement the programme in the coming year.

A Training Programme for Primary School Teachers for Preparation of Low Cost/No-Cost Play Materials : A State level workshop for preparing low cost/no-cost materials was organised by the Field Unit, September 12-17, 1979, at Mahesh Teachers' Training College, Jodhpur. Twenty-seven teachers of primary schools from different districts of Rajasthan participated in the programme.

Experimental Projects : 119 experimental projects were screened by the screening committee. Out of these projects, 28 were rejected, 60 were approved without any financial assistance, and 22 projects were approved for financial assistance. Amount of financial assistance would be Rs. 5,000/-approximately.

Field Adviser's Office, Tamil Nadu

The Field Unit Madras collaborated with the Directorate of School Education and SCERT in a number of programmes. At the

request of the Director of School Education and SCERT, the Field Adviser acted as a convener for the committee for developing learning packages for correspondence-cum-contact programme in science education for the higher grade teachers.

The Field Unit also collaborated with the workshops related to CAPE Project launched in Tamil Nadu by the Government of Tamil Nadu through the SCERT, Madras. The Field Unit also helped the Directorate of Examinations and Non-formal Education in developing model question papers in theory and practicals in Biology for the higher secondary school examination.

Collaboration was also extended to the Directorate of Education of Pondicherry in the conduct of a workshop at Karaikal on Enquiry Approach to Science Teaching for Primary School Teachers.

The experimental programme on universalisation of elementary education, under which non-formal education centres have been set up in a cluster of 10 villages in St. Thomas Mount Panchayat Union, Madras, continued.

Field Adviser's Office, Uttar Pradesh

The U.P. Education Department has taken up UNICEF assisted Projects I, II, III and IV. These projects were carefully followed up by providing feedback through monthly and special reports from time to time.

The Field Office at Allahabad looked after the non-formal education project at Jakhani, District Varanasi. Villages were visited regularly each month and field workers and field supervisors oriented, guided, motivated and supervised. The U.P. Education Department has also initiated action on this project. In addition to six centres to be run with the NCERT support, the State Government has proposed three more centres on its own.

With the collaboration of the Department of Measurement and Evaluation a workshop was organised for training 60 resource persons in the preparation of sample question papers, 12 sample questions were prepared and the material is under print for wider circulation by the U.P. Board. Similarly, with the help of the Field Adviser sample question papers were prepared in Home Science for printing and circulation by the U.P. Board.

The Field Adviser participated in State Government's effort in preparing new syllabus for elementary level teacher education, according to NCTE recommendation. The syllabus has been finalised and is being printed for introduction from 1980. At the university stage, the work related to improvement of B.Ed. syllabus was undertaken with the help and guidance of the Department of Teacher Education. During the year under report, the Avadh University came forward with concrete proposals about the proposed change.

The following two reports were cyclostyled and distributed :

- (i) Vocationalisation of Education at the Secondary Stage (Report of the Seminar held at Lucknow in February, 1979).
- (ii) Teacher Education Programme for the Secondary Stage. (Report of the seminar held at Allahabad in April, 1979).

Office of the Field Adviser, West Bengal, Sikkim and A & N Islands

Development Work : The Field Office helped in establishing continuing education centres, one at CIE, Gangtok, and five in West Bengal, State Council of Educational Research and Training and in David Hare Training College Campus, Calcutta.

Non-formal Education : Ten centres for imparting education through non-formal system started functioning under the supervision of this office from March 1979. Before establishing these centres, the Field Office conducted in-depth study and survey of the centres at Egra Block-II, in the District of Michapore. Attendance of students in each centre during the last year averaged 89 per cent. The Field Adviser evaluated the functioning of these centres by undertaking on-the-spot study visits. It was found that all the students were able to read and write, could do addition and subtraction. The second phase of the programme was likely to start in these centres from May 1980 onwards.

In order to equip the instructors with non-formal approach of teaching, workshops and meetings were organised at different levels. Three such workshops for preparation of Bengali primers (with writers, editors and artists in non-formal education centres) were organised between March and April 1979, in which three Bengali primers were developed,

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Search for Talent

The search for talent has been a major concern of the Council. As part of this effort, the Council operated the National Science Talent Search Scheme from 1964, the purpose being to identify academically bright students in basic sciences. From 1977,

the scope of the scheme was enlarged and, in addition to basic sciences, social sciences and professional courses such as medicine and engineering, have been included in this scheme.

During the year 1979-80, the National Talent Search Examinations were held at 409 Centres all over the country for Classes X, XI, and XII. The details are given below :

<i>Class</i>	<i>No. of Candidates Appeared</i>	<i>No. of Candidates Selected During 1979-80</i>
X	43,260	250
XI	9,813	100
XII	29,093	150
Total	82,166	500

The number of candidates who appeared in the examination marked an increase of about 30 per cent over those who took the examination in 1978.

The selected awardees are eligible to receive scholarships up to Ph.D. level in case of basic science, agricultural sciences and social sciences and in case of professional courses up to M.D./M.S./M. Tech. after suitable revalidation by the NCERT. The number of scholars in 1979-80, discipline-wise and stage-wise, is shown in the Annexure.

The rates of scholarship are as follows :

<i>Name of Examination</i>	<i>No. of Scholarships</i>	<i>Rate of Scholarship</i>
Class X	250	a) Rs. 150 per month for two 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.
Class XI	100	a) Rs. 150 per month for one year +Rs. 300 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.

The Council also organises summer schools for the scholars as a part of nurturing activities. In these summer schools, the scholars are deputed to University departments and scientific institutions of repute where they work under close supervision of renowned scholars and research workers.

Apart from administering tests and conducting interviews, the Council also undertakes follow-up studies of the talent scholars. The findings of some of the significant studies completed during 1979-80 are reported below.

(i) A Longitudinal Study of the Academic Performance of Talented Science Students: The study was taken up to find out whether (a) the candidates selected for the National Talent Search Award showed consistently superior academic performance; (b) there was any association between the average gain in performance at B.Sc. and M.Sc. levels; and (c) the ranks assigned at the time of selection bore any relationship with later academic achievement of selected students at various levels. The analysis has suggested the following conclusions :

(a) Students selected for the National Science Talent Search Award have shown consistently superior academic performance at B.Sc. and M.Sc levels;

(b) No consistent picture has emerged to show whether performance at M.Sc. had improved in comparison to that at B.Sc. for correlations obtained, though positive, are not significant;

(c) Correlations are generally low and not significant between the ranks assigned by the National Science Talent Search Examination and the later performance at the B.Sc. and M.Sc. levels, indicating that the selection procedures did not predict subsequent academic performance. The above findings are tentative and to be interpreted with caution in view of the small size of the sample.

(ii) Attrition in Science Talent Search Scheme

(a) Some of the findings of the study are : Many of the candidates selected under Science Talent Search Scheme "slip" away from the scheme right in the beginning. The initial dropout rate since 1967 has varied between a minimum of 29% to a maximum of 49%. They are lost to this scheme without joining.

(2) Dropout is relatively maximum at terminal stages, say, B.Sc. first year, M.Sc. first year, and the first and last year of Ph. D.

(c) Only a small proportion of those who are selected or accept the award complete four years of Ph.D. For instance, out of those selected in 1967, only 6% completed four years of Ph.D. and out of those who accepted awards in the first year, only 9% completed four years of Ph. D.

(iii) Causes of Drop-out Among National Science Talent Search Awardees : On the basis of the study the following conclusions can be derived :

(a) It is at the initial stage that most of the Talent gets lost. Though declared talented and selected for the talent search award, almost 48% awardees go without availing of the scholarship, the major reason being that they do not offer the Basic Sciences, a constraint placed by the rules prevalent in the National Science Talent Search Scheme in the initial stages.

(b) Year-wise study of the causes also indicates that most important reason for dropout over the years has been that of opting for courses other than those in Basic Sciences, 34% dropout over the years (15% to 64%) was due to students not offering Basic Science courses.

(c) 9% candidates dropped out over the years because of not securing first class or not showing good academic performance.

(d) Almost 70% of the dropout took place at the B.Sc. stage.

(e) Most of the dropout (22%) at B.Sc. level took place because of awardees not getting first class or showing poor progress.

(f) Year-wise study of B.Sc. level students showed that the major reason for dropout was the candidates not securing first class. A small proportion of candidates (5%) dropped out because of leaving for foreign countries,

(g) At the M.Sc. stage, most of the dropout was in the second year (77%). Two major reasons for dropout at this stage were going abroad and not securing first class although in the first year of M.Sc. some (8%) had also dropped out because of 'faking up job'.

(h) Most of the dropout at the Ph.D. stage takes place in the first year. The reasons for dropout which consistently appear in various years at this stage have been : leaving for abroad; taking up job and leaving studies.

9. The total picture that emerges out of this study of reasons for dropout during ten years of National Science Talent Search indicates that most of the talented candidates leave because of not offering the Basic Sciences; not showing good performance in examinations; leaving for abroad; taking up jobs and leaving the studies.

(iv) Analysis of National Talent Search Examination (1976) :

A Background study.

The conclusions derived from the study are as follows :

(i) Most of the candidates who appeared for the National Science Talent Search Examination in 1976 were from U.P., followed by States and Union Territories like Delhi, Rajasthan, Andhra Pradesh, Madhya Pradesh, Tamil Nadu and West Bengal. The maximum number of awards went to Delhi followed by West Bengal, Maharashtra and Kerala, if total number of candidates appeared from each of these states is taken into consideration. Most of the candidates (28%) in the selected group came from Delhi followed by West Bengal, Rajasthan and Maharashtra.

(ii) The written test and the interview tended to favour those who belonged to the urban areas in comparison to those who came from rural areas.

(iii) Girls performed better than the boys in the written test, but the interview favoured males as compared to females.

(iv) Performance of the candidates from the Public schools was the best both in final selection and also in interview, while that of the candidates coming from Govt. Schools was the worst.

(v) While in the written test English medium students did better, in interview students from other languages performed better. In

comparison to other language groups, the selected candidates were 5% more from English Group than from other groups, taking the total of English and other languages into consideration. Group-wise analysis showed that in the selected group nearly 65% more had come from English medium in comparison to other languages.

(vi) Candidates who had many hobbies had greater chance of being called for interview and also for being selected.

(vii) Students with better academic achievement had greater chance of success at this examination, although high academic achievement was not found to be a sure indicator of good performance at the NSTS.

(viii) Those called for interview and those who were selected had an edge over non-awardees as far as obtaining of merit scholarships was concerned. Similar are the results relating to the winning of merit certificates.

The results show that the educational, economic and occupational level of the family plays a significant role in determining the chances of getting selected for the scholarship.

Annexurè

**NUMBER OF SCHOLARS IN 1979-80, (DISCIPLINE-WISE & STAGE WISE)
UNDER NATIONAL SCIENCE TALENT SEARCH (NSTS) AND NATIONAL
TALENT SEARCH (NTS) SCHEMES.**

<i>Discipline</i>	<i>Stage/Class</i>	<i>No. of Scholars</i>	<i>Remarks</i>
(Common grouping at Senior Secondary level)	XI	242	
	XII	185	
Basic Sciences	B.Sc. I	88	
	B.Sc. II	54	
	B.Sc. III	32	
	M.Sc. I	138	
	M.Sc. II	144	
	Ph.D. I	40	
	Ph.D. II	27	
	Ph.D. III	39	
	Ph.D. IV	31	
Engineering/ Technology	B.Tech. I	238	Scheme extended to Engineering stream in 1977
	B.Tech. II	168	
Medicine	M.B.B.S. I	143	Scheme extended to Medical stream in 1977
	M.B.B.S. II	52	
Social Sciences	B.A. I	116	Scheme extended to Social Sciences stream in 1977.
	B.A. II	39	
Total		1776	

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Publications

The publication and supply of quality textbooks, instructional materials, monographs on studies and investigations, is an important and regular feature of the Council's activities. Through the Publication Department, it produces and distributes a

wide range of publications. in the field of education, namely, school level textbooks, workbooks, teachers' guides, supplementary reading materials, research monographs and reports, educational surveys, handbooks and other instructional materials, educational journals, pamphlets and brochures etc.

Publications

The publication activity during the year continued to be centred on the production and distribution of new textbooks for the new pattern of school education; 28 first edition English/Hindi, and 20 new Urdu textbooks, i.e. a total of 45 new textbooks were brought out. In addition, 111 reprint textbooks, 34 research and developmental publications; 13 books for other governments/agencies, 13 books on non-formal education and 4 books under Radio-Pilot Project and 29 issues of the Council's journals were also brought out. The category-wise break-up of the titles brought out is as under :

New first edition textbooks	28+20 Urdu	= 48
Reprint textbooks	107+1 Urdu	= 108
Supplementary Readers		= 2
Books for other Governments/Agencies		= 13
Books on Non-formal Education		= 9
Books under Radio-Pilot Project		= 4
Research Monographs/Reports		= 34
Periodicals (counting each issue)		= 29

The details of the publications brought out is given in the Appendix.

The Japanese Publishing firm, M/S Teikoku-Shoin & Co. were given the rights to bring out the first Japanese edition of the NCERT textbooks, 'The Story of Civilization' Part I and Part II. The publisher has agreed to pay royalty at the rate of 7 per cent to the NCERT.

Distribution

The Publications Division of the Ministry of Information and Broadcasting, New Delhi, the national distributors for NCERT publications, continued the sale and distribution of NCERT publications in the Northern, Eastern and Western Zones through their sales

emporia at New Delhi, Bombay and Calcutta. The Southern Zone was served by the Publication Department directly. All the Council's journals were also distributed and sold by the Council itself.

A new and special feature of the distribution of textbooks was the advertising by NCERT for orders from schools/educational institutions and despatching books against these orders directly. This was undertaken specially to ensure that schools which complain of non-availability of NCERT textbooks or of difficulties in procuring them through the normal distribution and trade channels, should get their requirements of NCERT textbooks. As a result of this, 439 direct orders were received by NCERT. This includes 120 orders from Kendriya Vidyalayas, 300 orders from other schools etc., 14 orders from Sainik Schools and 5 orders from Central Schools for Tibetans. The requirements of textbooks of various districts in Arunachal Pradesh were also met by the NCERT directly.

Participation in Book Fairs

The Council participated in the following book fairs/exhibitions in India :

4th World Book Fair held at New Delhi

National Children's Science Exhibition held at New Delhi and Bombay

National Urdu Book Fair, Lucknow

International Children's Book Fair held at New Delhi.

The Council also participated in the International Book Fairs/Exhibitions as detailed below during 1979-80 by sending selected NCERT Publications through the National Book Trust, New Delhi.

Second Moscow International Book Fair

International Leipzig Book Fair

11th Singapore Festival of Books and Book Fair

National Book Fair, Accra

International Frankfurt Book Fair

London Book Fair

International Children's Book Exhibition, Ankara

International Children's Book Festival in Seouls

Exhibition of Indian Books in Sri Lanka

12th International Book Fair, Caixo

Exhibition of Indian Books—Indonesia

Children's Book Fair, Manila.

In the International Children's Book Fair held at New Delhi, the NCERT's stall was adjudged the best stall in the category of double stalls and a cash prize of Rs. 1,000/- was awarded to the Council.

The following NCERT titles were selected by the Federation of Indian Publishers, New Delhi, for Award(s) for Excellence in Book Production, as noted against each :

Akhyanika	2nd Award
Bal Bharati Bhag-III	Certificate of Merit
Vidyalaya Mein Pratham Dus Varsh	Certificate of Merit

These awards were distributed during the 4th World Book Fair held in February-March at New Delhi.

Sale

During the year, the sale of the NCERT publications amounted to Rs. 1,18,75,565.98 plus U.S. \$ 1751.82 and sterling £ 1.20. In addition to this, an amount of Rs. 46,674.37 was received as royalty due from private sector publishers for printing in collaboration with NCERT. In addition, U.S. \$ 664.06 were received as royalty from M/S. Teikoku-Shoin and Co. for the Japanese edition of *India on the Move*. These receipts showed an increase of 27.7 per cent over the previous year.

A detailed list of the titles brought out during the year is given in the annexure to this Section.

Journals

Journals occupy pride of place in NCERT's publishing activity. They cater to a wide range of readers, from primary school teachers to research workers. The *Primary Teacher/Primary Shikshak* (quarterly) published simultaneously in English and Hindi, transmits to practising teachers and administrators authentic information about the educational development taking place at primary stage. It gives

meaningful and relevant material for direct use in the classroom. *Indian Educational Review* (quarterly) provides a medium for dissemination of research findings and information regarding research in education and for exchange of experience among research workers, scholars, teachers and others working in the field of educational research. The *Journal of Indian Education* (bi-monthly) provides a forum for teachers, teacher-educators and research workers to encourage original and critical thinking in education through discussion of current educational views.

School Science (quarterly) is a 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.

In addition, the Council publishes its own house journal entitled *NCERT Newsletter* which carries news items, reports and informative write-ups about the activities of the Council.

Annexure

PUBLICATIONS BROUGHT OUT BY THE COUNCIL DURING 1979-80
(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
A. TEXTBOOKS AND WORKBOOKS, CLASSWISE			
<i>Textbooks</i>			
1.	Let's Learn English Book-I (S.S.) (R.P.)	May	1979
2.	Arun Bharati Bhag-I (For Arunachal Pradesh)	May	1979
3.	Bal Bharati Bhag-I (R.P.)	March	1980
4.	Mathematics for Primary School Book-I (R.P.)	May	1979
<i>Workbooks</i>			
5.	Workbook to Let's Learn English Book-I (R.P.)	May	1979
6.	Workbook to Let's Learn English Book-I (R.P.)	March	1980
7.	Abhyas Pustika Bal Bharati Bhag-I (R.P.)	January	1980
8.	Abhyas Pustika Bal Bharati Bhag-I (R.P.)	April	1979
CLASS II			
<i>Textbooks</i>			
9.	Let's Learn English Book-II (S.S.) (R.P.)	July	1979
10.	Bal Bharati Bhag-II	May	1979
11.	Bal Bharati Bhag-II (R.P.)	March	1980
12.	Insight into Mathematics Book-II (R.P.)	May	1979
<i>Workbook</i>			
13.	Abhyas Pustika Bal Bharati Bhag-II (R.P.)	January	1980
CLASS III			
<i>Textbooks</i>			
14.	Let's Learn English Book-III (SS) (R.P.)	April	1979
15.	Bal Bharati Bhag-III	June	1979
16.	Environmental Studies Part-II	May	1979

1	2	3	4
17.	Environmental Studies Part-I	March	1980
18.	Paryavaran Adhyayan Bhag-II	June	1979
19.	Paryavaran Adhyayan Bhag-I	November	1979
20.	Paryavaran Adhyayan Bhag-II (R.P.)	June	1979
<i>Workbooks</i>			
21.	Abhyas Pustika Bal Bharati Bhag-III	June	1979
CLASS IV			
<i>Textbooks</i>			
22.	English Reader (S.S.) (R.P.)	March	1980
23.	Aao Padhen Aur Seekhen—Meri Chauthi Pustak (R.P.)	April	1979
24.	Insight into Mathematics Book-IV (R.P.)	March	1980
25.	Environmental Studies Part-II for Class IV	May	1979
26.	Environmental Studies Part-I. (R.P.) for Class IV	March	1980
27.	Paryavaran Adhyayan Bhag-II Class IV	June	1979
28.	Paryavaran Adhyayan Bhag-II Class IV (R.P.)	February	1980
29.	Paryavaran Adhyayan Bhag-I Class IV	May	1979
30.	Environmental Studies Part-I Class IV	March	1980
<i>Workbook</i>			
31.	Workbook to English Reader-I (R.P.)	March	1980
CLASS V			
<i>Textbooks</i>			
32.	English Reader-II (S.S.) (R.P.)	April	1979
33.	English Reader-II (S.S.) (R.P.)	March	1980
34.	Aao Padhen Aur Khojen—Meri Panchveen Pustak (R.P.)	January	1980
35.	Learning Science Through Environment	May	1979
36.	Learning Science Through Environment (R.P.)	March	1980
37.	Paryavaran Se Vigyan Seekhna	March	1980
38.	India and the World (R.P.)	April	1979
39.	Bharat Aur Sansar (R.P.)	April	1979
<i>Workbooks</i>			
40.	Workbook to English Reader Book-II (R.P.)	March	1980
41.	Meri Abhyas Pustika Aao Padhen Aur Khojen—Meri Panchveen Pustak (R.P.)	March	1980
CLASS VI			
<i>Textbooks</i>			
42.	English Reader-III (S.S.) (R.P.)	February	1980
43.	Bharati Bhag-I (R.P.)	April	1979

1	2	3	4
44.	Mathematics Book-I (R.P.)	May	1979
45.	Ganit Book-I (R.P.)	March	1980
46.	Learning Science Part-I (R.P.)	April	1979
47.	Aao Vigyan Seekhen Bhag-I (R.P.)	May	1979
48.	Learning Science Part-II (R.P.)	March	1980
49.	History and Civics Part-I (R.P.)	May	1979
50.	Iti has Aur Nagrik Shastra Bhag-I (R.P.)	May	1979
51.	Lands and People Part-I (R.P.)	April	1979
52.	Lands and People Part-I (R.P.)	March	1980
53.	Desh Aur Unke Niwasi Bhag-I (R.P.)	April	1979
54.	Desh Aur Unke Niwasi Bhag-I (R.P.)	March	1980
<i>Workbook</i>			
55.	Workbook to English Reader-III (R.P.)	January	1980
CLASS VII			
<i>Textbooks</i>			
56.	Bharati Bhag-II (R.P.)	November	1979
57.	Bharati Bhag-II (R.P.)	March	1980
58.	Mathematics Book-II Part-I (R.P.)	January	1980
59.	Mathematics Book-II Part-II (R.P.)	May	1979
60.	Mathematics Book-II Part-II (R.P.)	January	1980
61.	Ganit Book-II Part-II (R.P.)	May	1979
62.	History and Civics Part-II	July	1979
63.	Itihas Aur Nagrik Shastra Bhag-II	July	1979
64.	Lands and People Part-II	May	1979
65.	Desh Aur Unke Niwasi Bhag-II	June	1979
66.	Desh Aur Unke Niwasi Bhag-II (R.P.)	December	1979
CLASS VIII			
<i>Textbooks</i>			
67.	English Reader-V (S.S.) (R.P.)	February	1980
68.	Mathematics Book-III Part-I	May	1979
69.	Ganit Book-III Bhag-I (R.P.)	September	1979
70.	Mathematics Book-III Part-I (R.P.)	January	1980
71.	Mathematics Book-III Part-II	October	1979
72.	Mathematics Book-III Part-II (R.P.)	March	1980
73.	Learning Science Part-III	July	1979
74.	Modern India for Middle Schools (R.P.)	April	1979
75.	Independent India for Middle Schools (R.P.)	May	1979
76.	Europe and India (R.P.)	May	1979
77.	Europe Aur Bharat (R.P.)	April	1979
CLASS IX			
<i>Textbooks</i>			
78.	English Reader-VI (S.S.) (R.P.)	June	1979
79.	Mathematics Part-I (R.P.)	June	1979

1	2	3	4
80.	Ganit Part-I (R.P.)	June	1979
81.	Science Part-I	June	1979
82.	Vigyan Bhag-I	July	1979
83.	The Story of Civilisation (History)	April	1979
84.	Sabhyata Ki Kahani Bhag-I (History) (R.P.)	May	1979
85.	General Geography of the World Part-I (R.P.)	May	1979
83.	Vishwa Ka Samanya Bhugol Bhag-I (R.P.)	May	1979

CLASS IX-X

Textbooks

87.	Life Science (R.P.)	July	1979
88.	We and Our Government (R.P.)	May	1979
89.	Hum Aur Hamara Shashan (R.P.)	May	1979

CLASS X

Textbooks

90.	Mathematics Part-II (R.P.)	June	1979
91.	Ganit Part-II (R.P.)	June	1979
92.	General Geography of the World Part-II	April	1979

CLASS XI

Textbooks

93.	English Reader Part-I (Core) (R.P.)	May	1979
94.	English Reader Part-I (Core) (R.P.)	March	1980
95.	English Supplementary Reader-I (R.P.)	May	1979
96.	Hindi Pratinidhi Kahaniyan (R.P.)	May	1979
97.	Hindi Pratinidhi Ekanki (R.P.)	June	1979
98.	Mathematics Book-I (R.P.)	May	1979
99.	Mathematics Book-I (R.P.)	January	1980
100.	Ganit Pustak-I (R.P.)	June	1979
101.	Mathematics Book-II (R.P.)	January	1980
102.	Ganit Bhag-II (R.P.)	June	1979
103.	Mathematics Book-II (R.P.)	May	1979
104.	Physics Part-I (R.P.)	July	1979
105.	Bhautiki Vigyan Bhag-I (Khand-I) (R.P.)	July	1979
106.	Chemistry Part-I (R.P.)	June	1979
107.	Rasayan Vigyan Part-I Vol. I (R.P.)	June	1979
108.	Biology Part-I (R.P.)	July	1979
109.	Bharat Ka Samanya Bhugol (R.P.)	August	1979
110.	Foundations of Political Science	April	1979
111.	Rajniti Vigyan Ke Aadhar	June	1979
112.	Evaluations of Indian Economy (R.P.)	July	1979
113.	Bhartiya Arth Vyavastha Ka Vikas (R.P.)	June	1979
114.	Geography Workbook (R.P.)	July	1979

1	2	3	4
115.	Elementary Statistics—A Textbook on Economics	July	1979
116.	Elementary Statistics—A Textbook on Economics (R.P.)	January	1980
117.	Prarambhik Sankhyaki	July	1979
118.	Prarambhik Sankhyaki (R.P.)	January	1980
119.	Field Work and Laboratory Technique in Geography (R.P.)	June	1979
120.	Field Work and Laboratory Technique in Geography (R.P.)	March	1980
CLASS XI-XII			
121.	English Reader Part-II (Core) (R.P.)	March	1980
122.	Chayanika (R.P.)	May	1979
123.	Parijat (R.P.)	May	1979
124.	Vyakaran Saurbham (R.P.)	July	1979
CLASS XII			
125.	English Supplementary Reader-II (R.P.)	March	1980
126.	On Top of the World (R.P.)	March	1980
127.	Hindi Sahitya Ka Parchyatamak Itihas (R.P.)	March	1980
128.	Mathematics Book-III (R.P.)	May	1979
129.	Mathematics Book-III (R.P.)	March	1980
130.	Mathematics Book-IV (R.P.)	June	1979
131.	Mathematics Book IV (R.P.)	January	1980
132.	Ganit Pustak-IV (R.P.)	March	1980
133.	Physics Part-II (R.P.)	May	1979
134.	Chemistry Part-II (R.P.)	July	1979
135.	Rashtriya Lekha Padhati (R.P.)	April	1979
B. URDU EDITION OF TEXTBOOKS			
CLASS III			
1.	Learning Science Through Environment (R.P.)	June	1979
CLASS IV			
2.	Learning Science Through Environment	July	1979
CLASS VI			
3.	Mathematics Part I	April	1979
4.	Lands and People Part-I	July	1979
5.	Learning Science Part-I	June	1979
CLASS VII			
6.	Learning Science Part-II	June	1979
7.	History and Civics Part II	January	1980

1	2	3	4
CLASS X			
8.	Mathematics Part-II	July	1979
9.	General Geography of the World Part-II	July	1979
CLASS XI			
10.	Mathematics Book-I	July	1979
CLASS XII			
11.	Chemistry Part-II Vol. I	December	1979
12.	Mathematics Book-III	June	1979
13.	Chemistry Part-II Vol. II	September	1979
14.	Biology Part-II Vol. I	January	1980
15.	Indian Constitution and Government	November	1979
16.	National Accounting in India	August	1979
17.	An Introduction to Economic Theory	August	1979
18.	Physics Part-II Vol. II	January	1980
19.	General Geography of India Part-I	December	1979
20.	Indian Democracy at Work	June	1979
21.	Modern India	July	1979
C. TEXTBOOKS FOR OTHER GOVERNMENTS/ AGENCIES			
1.	Sopan-2 (For Fiji Government)	July	1979
2.	Meri Teesri Pustak (For Fiji Government)	July	1979
3.	Naya Jeevan Praveshika (For Madhya Pradesh Government)	September	1979
4.	Naya Jeevan Shikshak Sandershika (For Madhya Pradesh Government)	September	1979
5.	Naya Jeevan Abhiyas Pustika (For Madhya Pradesh Government)	September	1979
6.	Naya Jeevan Flash Cards (For Madhya Pradesh Government)	September	1979
7.	Learning Science Through Environment Class III (Urdu) for J & K Board	May	1979
8.	Paryavaran Se Vigyan Seekhna Class III (Hindi) (For J & K Board)	May	1979
9.	Learning Science Part-I Class VI (Urdu) (For J & K Board)	April	1979
10.	Aao Vigyan Seekhen Bhag-I Class VI (Hindi) (For J & K Board)	May	1979
11.	Mathematics Book-I Class VI (Urdu) (For J & K Board)	April	1979
12.	Ganit Pustak-I Class VI (Hindi) (For J & K Board)	May	1979
13.	We and Our Country Class III (Urdu) (For J & K Board)	April	1979

1	2	3	4
D. BOOKS ON NON-FORMAL EDUCATION			
1.	Hum Bhi Padhen Gay (Primer for Rural Boys)	July	1979
2.	Amar Uma (Primer for Urban Children)	October	1979
3.	Gyan Baati (Primer for Rural Girls)	October	1979
4.	Praveshika Sandershika—Gyan Baati	June	1979
5.	Prashikshan Nirdeshika	May	1979
6.	Teacher's Guide (Urdu)	September	1979
7.	Pathyacharya	June	1979
8.	Curriculum (Urdu)	July	1979
9.	Training Manual (Urdu)	October	1979
E. BOOKS UNDER RADIO-PILOT PROJECT			
1.	Pehli Kiran	September	1979
2.	Doosri Kiran	December	1979
3.	Suwarna	December	1979
4.	Suchitra (Writing Book)	August	1979
F. SUPPLEMENTARY READERS			
1.	Sankshipt Ramayan (R.P.)	June	1979
2.	Hamarā Anees (Urdu)	December	1979
G. RESEARCH MONOGRAPHS AND OTHER PUBLICATIONS			
1.	Third All-India Educational Survey (School Building)	April	1979
2.	Seminar Readings—Innovations in Schools 1979-80	June	1979
3.	Seminar Readings—Innovations in Schools 1979-80 (Hindi)	June	1979
4.	Education in the Social Context	July	1979
5.	Third All-India Educational Survey (Hostel Facilities for Scheduled Castes)	August	1979
6.	Occupational Selection and Educational Preparation	October	1979
7.	Annual Report 1978-79	January	1980
8.	Annual Report 1978-79 (Hindi)	January	1980
9.	Minimum Learning Continuum	September	1979
10.	Field Studies in the Sociology on Education—Report on West Bengal	October	1979
11.	Equalization of Educational Opportunities for Scheduled Castes and Scheduled Tribes	October	1979

1	2	3	4
12.	The Single Teacher School in Rural Education and Development	October	1979
13.	Innovative Practice in Elementary Teacher Educational Institutions in India—Volume I	November	1979
14.	Socially Useful Productive Work Curriculum—Developing and Implementing the Programme	November	1979
15.	Objective Tests—An Introduction Sample Items for National Talent Search Examination—Classes X, XI & XII	November	1979
16.	Third All-India Educational Survey (Teacher)	November	1979
17.	Language Problems and Policies in India and USSR	November	1979
18.	Directory of Secondary Schools in India Part-IV	December	1979
19.	An Introduction—Primary Education Curriculum—Renewal and Developmental Activities in Community Education and Participation—Unesco Aided Projects 2 and 3	December	1979
20.	Education for All Round Development	December	1979
21.	Universal Declaration of Human Rights	December	1979
22.	Research in the Classroom Volume-IV	January	1980
23.	Socially Useful Productive Work—Sample Curriculum Units	March	1980
24.	Audit Report 1978-79	March	1980
25.	Audit Report 1978-79 (Hindi)	March	1980
26.	An Introduction about NCERT	February	1980
27.	Experimentation and Innovation in Schools—A Handbook	September	1979
28.	Educational Objective at the Primary Stage—A Developmental Approach	April	1979
29.	Ikai Prashn Patra	November	1979
30.	NCERT Catalogue of Publications 1980	February	1980
31.	Price List of NCERT Books	February	1980
32.	Supplementary Reader in English—A Book of Reading	September	1979

H. JOURNALS

1. School Science December 1978, March, 1979, June, 1979
September 1979.
2. Indian Educational Review January 1979, April 1979, July 1979.

1	2	3	4
3.	Journal of Indian Education	January 1979, March 1979, July 1979, September 1979.	
4.	Primary Teacher	April 1979, July 1979, October 1979.	
5.	Primary Shikshak	April 1979, July 1979, October 1979.	
6.	NCERT Newsletter	April 1979, May 1979, June 1979, July 1979, August 1979, September 1979, October 1979, November 1979, December 1979, January 1980, February 1980, March, 1980.	

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International Assistance and International Relations

The Council has been one of the major institutions in the country in utilising international assistance in the field of education. The Council also functions as the Secretariat of the National Development Group for the Asian Centre for Educa-

tional Innovations for Development. The functions of the Secretariat include, among other things, establishment of line of communication with the Directorate of Education, SCERT's, SIE's and associated centres etc ; provision of information and documentation services ; development of an evaluation programme ; and institution of Indian programme of innovations.

It is the main agency for coordinating the implementation of many educational projects with international assistance in the country. Prominent among these projects are the UNICEF supported projects of Science Education ; Nutrition/Health Education and Environmental Sanitation at Primary level; Use of Environment and Local Resources for Teaching Primary Science, Primary Curriculum Renewal Project (Project II) ; Developmental Activities in Community Education and Participation (Project III) ; Comprehensive Access to Primary Education and Children Media Laboratory. A brief report of the work done in these projects has been given elsewhere.

CENTRAL COORDINATION UNIT

For the proper overall coordination of the UNICEF supported projects the Council set up in December, 1979 a Central Coordination Unit (CCU) with the following functions :

- To ensure coordination of UNICEF-aided projects and deal with all correspondence with the Ministry of Education, UNICEF and the States and submit periodical reports to the Ministry and UNICEF ;
- To receive budget proposals for various UNICEF-aided projects ;
- To issue financial sanctions for UNICEF-aided programmes ;
- To draw lists for supply of equipment and materials to the States and concerned key institutions ;
- To assist States and project leaders regarding the UNICEF-aided projects ;
- To scrutinize maintain and release accounts to States and report them to the UNICEF.
- To maintain liaison with States/UNICEF/A.D. Shipping of various ports for supply of materials imported or locally purchased for the project and supervise and control dispatch of supply items from different ports.
- To follow up the receipt of supply items by States/institutions.

During the year under report, the CCU coordinated the distribution of equipment and disbursement of funds as stated below :

Equipment Received from Outside Agencies and Distributed to the States : Equipment worth Rs. 67 lakhs and printing and cover paper worth Rs. 2.5 lakhs were received and distributed to the various States. Under Science Education Programme, which has since been phased out, supply of equipment, educational kits, books and local programme materials are still in the pipe-line for nearly 150 teacher training institutions covering almost all the States and Union Territories. Equipment has also been supplied to the 5 Regional Centres for Nutrition Education, 4 Regional Colleges of Education and 15 State Institutes of Education under the Project II and III. Materials under Project IV and V still lie in the pipe-line. Supervisory vehicles have been supplied to 15 States and Union Territories under the Project II and III.

The imported equipment to teacher training institutes are of the following categories :

- Audio-visual equipment like prototypes, slide-cum-tape recorder, radio, etc
- Light tools/workshop equipment
- Hand tools/workshop materials
- Science equipment for physics, chemistry and biology
- Petromax lamps, maps, globe and other teaching equipment.

Funds Received from Outside Agencies and Distributed to various States

Nutrition Education: Local Resource Project : Funds for the regional Nutrition Education Centres are released directly from the UNICEF Zone Office. Simultaneously, the UNICEF Zone Office advances money directly to the States for local resource project on the basis of programmes and budget approved by the NCERT according to the plans of the projects. The following statement gives the state-wise expenditure on various UNICEF-aided project during the year.

STATE-WISE INFORMATION IN RESPECT OF EXPENDITURE
INCURRED FOR UNICEF-AIDED PROJECTS FOR THE YEAR
1979-80

<i>State/UT</i>	<i>Project II & III</i>	<i>Project-IV (CML)</i>	<i>Project-V (CAPE)</i>
1. Andhra Pradesh*	—	—	—
2. Assam*	15,867.24	—	32,579.21
3. Bihar*	35,933.45	21,422.70	70,893.97
4. Gujarat*	22,324.60	—	—
5. Himachal Pradesh*	47,795.89	—	—
6. Karnataka*	3,992.11	18,129.72	35,232.89
7. Kerala*	17,023.05	—	—
8. Madhya Pradesh*	2,363.80	—	55,206.61
9. Maharashtra*	83,183.63	—	1,27,048.25
10. Orissa*	78,652.98	—	39,602.58
11. Rajasthan*	78,654.80	—	—
12. Tamil Nadu*	37,239.36	25,767.35	86,056.58
13. Uttar Pradesh*	1,72,837.74	—	1,81,486.08
14. Delhi*	1,35,228.25	1,780.00	4,770.80
15. Goa	—	—	6,529.40
16. Mizoram	60,003.45	—	7,257.50
NCERT HEADQUATERS	1,58,267.39	—	1,916.00
	9,49,367.74	1,85,855.57	5,48,579.87

*States/UTs where projects No. II & III are in operation.

INTERNATIONAL RELATIONS IN EDUCATION

Participation in international educational programmes has been one of the important activities of the Council and it is one of the major institutions in the country for promoting international contacts and utilising international assistance in the field of education. During the year under report it has been associated with UNESCO/APEID, UNICEF, UNDP, British Council, Commonwealth ITEC/TCS and Bilateral Cultural Exchange Programme.

UNESCO/Asian Programme for Education Innovations for Development (APEID)

With the UNESCO the activities of the Council have been of two-fold nature—direct participation in the programmes; and participa-

tion in UNESCO activities through the APEID. The direct participation in UNESCO activities included sponsoring and receiving specialists to various workshops, seminars, training programmes and study visits. The Council hosted the following regional/international meetings sponsored by UNESCO :

(i) Mobile Field Operational Seminar in "Science and Technology" organised at Regional College of Education, Bhopal, from August 22-31, 1979. This seminar included an on-the-spot study of science curriculum development and teacher training projects in South-East Asian countries. The meeting was attended by a participant each from Afghanistan, Japan, Malaysia, Nepal, the Philippines, Thailand. Two participants from India were Mr. S.R. Rao, Field Adviser, Bangalore, and Dr. G.K. Lehri, Regional College of Education, Bhopal.

(ii) A Regional Workshop on "Innovative Structures and Approaches to Population Education" from October 23-29 was held in New Delhi. Representatives of Korea, Malaysia, Nepal, Pakistan, the Philippines, Sri Lanka, Thailand and observers from UNESCO, Bangkok, participated in the workshop.

(iii) Sub-Regional National Workshop on ' Designing and Developing Innovative Science Curriculum and Instructional Materials at Regional College of Education, Bhopal, from November 23-27, 1979.

(iv) Study visit of 4 representatives of APEID Associated Centres in Japan from February 20-March 4, 1980.

(v) Sixth "Regional Consultative Meeting of APEID" at Bangalore from April 22-30, 1979.

(vi) Study group meeting of 10 nations on "Training Methodologies Based on Locally Available Learning Resources for the Training of Educational Personnel" at Regional College of Education, Mysore, from November 14-27, 1979.

(vii) Study visit of a group of 13 participants from 9 countries for inter-project/inter-country study visit on educational technology at the Centre for Educational Technology, New Delhi from October 28-November 6, 1979.

(viii) An Inter-Country/Inter-Project Study Visit for 6 Curriculum Developers from Bangladesh and Papua-New Guinea from September 1-7, 1979.

(ix) An Inter-Country Study Visit for 3 Curriculum Developers from Bangladesh from December 9-14, 1970.

(x) Mr. M. Maurata from the Ministry of Education, Japan, was attached to the Survey and Data Processing Unit of the Council for study in the field on "Documentation and Information System Processing" from 16-30 January 1980.

The Council participated in the following international/regional meetings sponsored by UNESCO/APEID :

UNESCO

(i) Mobile Field Operational Seminar in "Science and Technology" at the Philippines and Thailand from August 13-20, 1979 and from September 3-7, 1979.

(ii) A Regional Seminar on "New Personnel Profiles in Relation to Changes in Society and Educational System" at Bangkok from January 14-21, 1980. This seminar reviewed and analysed socio-economic, cultural and other changes which have implications for education and to suggest alternative mechanism and techniques and strategies for preparing new profiles of teachers and to promote innovations in methods and contents for training.

(iii) Regional Seminar on Educational Reforms in Asia held at Tokyo from May 31 to June 9, 1979.

(iv) Internship programme in Documentation and Information Service for Population Education held at Bangkok from September 3-28, 1979.

(v) A study group meeting on Development of Exemplar Materials for In-service Training of Teachers held at Bangkok from September 20-29, 1979.

APEID

(i) High-level Teacher Educators Project Study and Seminar at Seoul (Korea) from May 14-26, 1979.

(ii) Regional Seminar for preparing guidelines and developing Innovative Examination Tools, Methodologies and Procedures at Bangkok from September 10-20, 1979.

(iii) UNESCO study group meeting for developing instructional materials for productive skills at Jakarta (Indonesia) from July 16-31, 1979.

(iv) Special workshop on Educational Research at National Institute for Educational Research, Tokyo (Japan), from March 17-31 1979.

(v) Seminar on Designing of Curriculum held in Canberra (Australia) in collaboration with Australian Commission for Unesco from September 11-18, 1979.

(vi) Sub-Regional Workshop on "Designing and Developing Innovative Science Curriculum and Instructional Materials" held in Sri Lanka from December 10-22, 1979.

(vii) Regional workshop for Compilation of Joint Study of Moral Education in Asian Countries at National Institute for Educational Research, Tokyo (Japan), from February 19-March 18, 1980.

The Council has signed the following contracts with the UNESCO for different studies :

(i) "Adapting Science and Technology Education to Changing Society and Diversity and the Needs of Member States". This Study will contain concrete reference to the work already done in trying to solve some of the problems and make suggestions on what might be done. The study is to be completed by the end of May, 1980.

(ii) A case study on "Development and Use of Low Cost Appropriate Educational Materials and Equipment in India". This case study covers the need for development and use of low-cost materials and equipment and their evaluation. It also studies the problems and issue in terms of personnel, material development, distribution and use of materials by teachers and students.

(iii) A study on "Democratisation of Education in India : New Thinking on Non-formal Education and Pattern of Education at the Primary Level." The study contains strategies followed by the Government towards the implementation of national policy of education and discussed the factors effecting access of the under-privileged children to education and various means and measures undertaken to overcome these difficulties. It also gives an account of the trends and new programmes being implemented at a national scale. This study has been completed and reports submitted to the UNESCO.

UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)

During the year under the UNDP fellowship programme, the Council arranged training for the following :

(i) Mr. Abdul Hakkim of Afghanistan is undergoing training course in the field of Educational Technology and Audio-Visual Education for a period of one year. His training will be completed by the end of December 1980.

(ii) Three-month training course in Pre-School Education for a group of 10 Afghanistan Teachers from the 21st January 1980.

(iii) Training programme in Pre-School Education for a group of 5 Bhutanese Teachers for a period of one month in January-February 1980.

(iv) Five-week training course for 5 UNESCO fellowship holders from Mauritius in the field of Conducting Examination from 12 February-16 March, 1980.

COMMONWEALTH

The Council participated in a Regional Seminar on "Universalisation of Primary Education in Asia and Pacific" organised by Commonwealth Secretariat in Dacca (Bangladesh) from December 3-14 1979.

ITEC/TCS

Under the Indian Technical and Economic Cooperation Programme of the Ministry of External Affairs, Government of India, the Council organised three-month training course for one Maldivian teacher in the field of Pre-School Education from January-March, 1980. Dr. (Mrs.) U. Bevi and Mrs. Uma Banerjee of the Child Study Unit were deputed to Maldives for one and a half months to plan pre-school education programmes in Maldives.

Other Programmes

The Council received a number of visitors from various academic institutions for the study of educational programmes and activities of the Council. A list of these visitors to the Council is given in Appendix I.

The Council also deputed a number of its specialists to various international meetings and conferences as follows :

(i) International Education Colloquy on "The Task of School for Preparing New Generation of Life" held at Berlin from April 19-26, 1979.

(ii) International Congress on Psychology of Child organised by the Universite' Rene' Descartes', Paris, from July 1-8, 1979.

(iii) IXth World Congress of the International Association of Educational and Vocational Guidance held at Konigstein, FRG, from September 3-7, 1979.

(iv) Seminar on "Methods of Teaching Science" organised by Goethe Institute in Cairo from February 23-24, 1980.

(v) Open University Conference on the Education of Adults at a Distance, held at Barmingham, U.K., from November 18-23, 1979.

(vi) Meeting for the planning of a "Handbook of Guidelines for Classroom Teachers on the Implementation of Unesco Recommendations Concerning Education for International Understanding, Co-operation and Peace and Education Relating to Human Rights and Fundamental Freedom", held at London from December 3-7, 1979.

(vii) International Symposium on "World Trends in Science Education" organised by Atlantic Institute of Education, Halifax (Canada), from August 12-25, 1979.

A list of Council officers who attended various programmes may be seen at Appendix II.

Training Programmes

(i) Training course for the administrators of In-service Teacher Education Programme organised by International Training Institute, Australia, from September 19 to December 2, 1979. Dr. Chhotan Singh of Extension Unit was deputed for this programme.

(ii) Shri K.C. Nautiyal was deputed to attend the three-month training course at UNESCO Headquarters, Paris, from 2.1.1980 to 31.3.1980.

Bilateral Cultural Exchange Programme

The Council has educational contacts with about 25 countries through the channel of bilateral cultural exchange programme.

Through these programmes, the Council has been exchanging educational materials including textbooks, supplementary readers curricula, syllabi, research monographs as well as films and film strips on various educational themes. One of the important features of this programme is the exchange of personnel for study-cum-observation tours to various countries for sharing experience in various areas of education.

During the period under report, the Council deputed two officers to Mauritius for assisting the Summer Schools in the area of Examination Techniques and Teacher Training for inspectors and supervisors. Similarly, the Council also deputed its two officers to Belgium for a study visit in the area of textbook preparation and teacher education.

ANNEXURE-I

Foreign Visitors to the Council

1. Mr. Saifuddin Ahmed, Assistant Educational Adviser, Ministry of Education, Dacca, Mr. Ilias Khan, District Education Officer, Mymensingh, and Mrs. Tonfiqa Begum, Asstt. Professor, Academy of Fundamental Education, Mymensingh, visited the Council from February 4 to 17, 1980. The objectives of the visit were to study (i) the policy and methods of Non-Formal Education, and (ii) the organisation, staffing and financing of non-formal education.

2. Mrs. Adelaide Kernochan, Education Specialist in the Department of Public Information, United Nations, New York, visited the NCERT from February 11 to 13, 1980.

3. The Council arranged a visit programme for Dr. Saiyut Champatong, Secretary-General, Thailand National Commission for UNESCO, on 22nd and 23rd January, 1980.

4. Dr. K.M. Serajul Islam, Director, Science and Technology Museum, Dacca, Bangladesh, visited NCERT on the 9th January, 1980. He was apprised with the working of the National Talent Search Unit and the Department of Teaching Aids.

5. Madam C.L. Villanueva, Documentation Specialist (Population Education), Bangkok, visited the Council from January 19 to 23, 1980.

6. Mr. T.K. Royal, Principal, Wellington High School, New Zealand, visited NCERT on the 21st and 22nd March, 1980, under a Govt. of India fellowship under the Commonwealth Education Co-operation Plan.

7. The NCERT arranged a visit programme for Mr. Richard Lee-wald, Programme Specialist, Unit for Co-operation with UNICEF, w.e.f. January 21 to February 2, 1980.

8. Mrs. Shakuntala Hawaldar, a Senior Executive of the Mauritius Audio-Visual Centre visited the NCERT from December 31 to January

11, 1980. Her programme was organised by the Department of Teaching Aids and Centre for Educational Technology.

9. Miss Kathleen Shordt, Consultant in the ESCAP Population Division, visited NCERT in December, 1979.

10. Mr. N. Harwood, Principal of the School at Coronula, visited the NCERT on the 2nd January, 1980.

11. A group of four trainees one each from Afghanistan, Nepal, Singapore and Thailand, visited the NCERT on the 20th December, 1979. Their field of interest was promotion of readership, public library services and activities. Their visit was arranged under the UNESCO's short-term Sub-regional In-service Study for the Book Industry Personnel in Asia.

12. The Council organised the visit programme of Mr. Juma Gul Karimi, Director-General National Science Centre, and Mr. Leunart L. Nilsson, UNESCO Adviser, Science Teaching Aid Centre, Kabul, from November 29 to December 6, 1979.

13. Mrs. Maenmas Chavalit, Director of the UNESCO Regional Office for Culture and Book Development in Asia, visited NCERT on 15th November, 1979.

14. The Council arranged study visit of a four-member delegation from Bangladesh in the area of primary education from November 19 to 26, 1979.

15. Mr. David Pritchard, Teacher, Minority Group Support Service, Coventry under the Bursary aided by the Community Relations Commission, UK, visited NCERT on the 11th November, 1979. He had discussions with the Council's officers on issues relating to development of curriculum and teacher training programme in the country.

16. A group of seven Indonesian officials in the field of Educational Personnel Management and Capability of Career Assessment visited the NCERT on the 3rd, November 1979, with an object to study determination of type and level of training, curriculum development, qualification of trainees and ways of evaluation.

17. Mr. Sahidullah, Secretary of Bangladesh University Grants Commission, visited NCERT on the 21st September, 1979.

18. A four-member team from the Chiangmai University, Thailand, visited NCERT from the 22nd to 24th October, 1979 for undertaking study in the field of Education under a study grant by UNESCO.

19. A high-level eight-member scientific delegation from Algeria led by Dr. Dzmeil Benbousid, Director of Scientific Research, Ministry of Higher Education and Scientific Research, visited NCERT on the 21st July, 1979.

20. A group of 16 Canadian high school teachers and administrators led by Prof. Ratna Ghosh, Department of Education, Mch ili University, Montreal, visited the NCERT on the 13th July 1979. The purpose for their visit to India was to gain first hand experience about India and thereby improve, on their return, the quality of teaching about India in Canadian high schools.

21. Dr. T.G. Whiston, Senior Fellow, Science Policy Research Unit, Sussex University, London. visited NCERT from the 20th to 23rd September, 1979.

22. The Council, in collaboration with the Directorate of Adult Education, New Delhi, arranged study visits to the centres and projects in non-formal education in India for a group of four educators from Bangladesh from August 6 to 11, 1979, under the UNESCO's Mobile Team Workshop on Non-formal and Alternative Structures in Education.

23. Ms. Mohammad Saleem and Mohammad Kabir Mohseny, the officials of the National Science Centre, Ministry of Education, Kabul, visited the Council from September 30 to October 7, 1979, under the UNESCO fellowship award.

24. Ms. A.H. Mohseni, L. Ayoubi, M.Z. Merany and A. M. Faiz, Science Supervisors, National Science Centre, Ministry of Education, Kabul, visited the NCERT from the 8th to 15th July, 1979.

25. Prof. S. Hernandez, Head of the Department of Educational Activities of National Institute of Indigenous People, Maxico, visited India for studying the programmes of Language Development and Tribal Education from the 16th August to 31st August, 1980, under Indo-Mexican Cultural Exchange Programme. His programme for Tribal Education was arranged by N C.E.R.T. on behalf of C.I.I.L., Mysore. During his stay in India, Prof. Hernandez visited Central Institute of

Hindi, Agra, Language Development Centre, Bombay, Tribal Villages of Bhopal, in addition to his programme at C.I.I.L. Mysore.

26. Mrs. Jacquelin, Odette Zoo Libyans and Mr. Gasten Van De Velde, experts in pre-primary education and science education visited India from the 1st to 17th March, 1980, for study programme in the areas of pre-primary education and science education in India, NCERT assisted Ministry of Education and Culture in developing programme for the visitors.

ANNEXURE-II

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

Year 1979-80 (From 1st April 1979 to 31st March 1980)

1. Dr. G.B. Kannungo, Principal, Regional College of Education, Bhubaneswar, attended a high-level Teacher-Educators Project Study and Seminar organised at Seoul by the ACEID, UNESCO, and the Korean National Commission for UNESCO, from May 14 to 26, 1979.

2. Prof. R.P. Singh, Secretary, Educational Research and Innovations Committee; and the In-Charge, Journal Cell of the Council, was deputed to participate in the Regional Seminar on Educational Reforms in Asia held at Tokyo from May 31 to June 9, 1979.

3. Prof. R.C. Das, Dean (Academic & Research) attended the Eighth International Educational Colloquy on "The Tasks of Schools for Preparing the Young Generation for Life", held at Berlin from April 9 to 26, 1979.

He participated in the development of a country report for India giving account of the progress made by India in different spheres of education in the context of our problems. The report was presented by the Minister of State for Education at the Colloquy. The delegation also visited institutes of pedagogy, vocational education and pre-school education.

4. Shri S. L. Verma, Documentation Officer, Library and Documentation Unit of the Council, was deputed to attend an Internship Programme in Documentation and Information Services for Population Education, held at Bangkok from September 3 to 28, 1979.

The Knowledge acquired will be utilised in organising storage and retrieval of information and clearing house services in regard to the Population Education Programme of the Council,

5. Dr. R.G. Misra, Head, Measurement & Evaluation Unit, was deputed to attend a Regional Seminar for preparing guidelines for developing innovative examination tools, methodologies and procedures, organised by UNESCO at Bangkok, from September 10 to 20, 1979.

6. Miss E. Marr, Reader, Department of Teacher Education, was deputed to attend a Study Group Meeting on Development of Exemplar Materials for In-service Training of Teachers, organized by UNESCO at Bangkok, from September 20 to 29, 1979. The participants from Bangladesh, India, Indonesia, Republic of Korea, Malaysia, Nepal, Pakistan, the Philippines, Singapur, Sri Lanka and Thailand, constituted the study group which aimed at sharing, analysing and building different strategies for the use in the participants' countries for in-service training of teachers and other education personnel.

She presented a paper on the In-service Training Programmes of the NCERT and acquainted herself with in-service education programmes in other participating countries and the materials being used by them for the same.

7. Prof. P.N. Dave, Head, CAPE group, was deputed to attend a Regional Seminar on Universal Primary Education in Asia and the Pacific, organised by the Commonwealth Secretariat in Bangladesh, from December 3 to 14, 1979.

He developed a paper on Universalisation of Elementary Education in India, highlighting the problems the country faces in this area and the strategies adopted for solving them. He also contributed to the development of a part of the country paper related to NCERT's UNICEF-assisted projects at the primary stage of education.

8. Dr. S.R. Rao, Field Adviser, Bangalore, and Dr. G.K. Lehri, Reader, RCE, Bhubaneswar, were deputed to attend the UNESCO Sub-regional Workshop on Science and Technology Education, held at Nepal, from December 10 to 22, 1979.

9. Miss Indira Malani, Reader, Child Study Unit, was deputed to attend the International Congress on Psychology of Child, organised by the Universite' Rene' Descartes', Paris from July 1 to 8, 1979. She presented a paper in the Session on the topic "Psychological and Sociological Signification of Pre-school education",

The paper highlighted the innovative measures adopted in the area of pre-school education.

10. Dr. (Mrs.) P.H. Mehta, Head, Educational and Vocational Guidance Unit, was deputed to participate in the Ninth World Congress of the International Association of Educational and Vocational Guidance, held at Königstein, FRG, from September 3 to 7, 1979. The theme of the Conference was "Young Persons in Transition from School to Work—A Challenge to Counselling".

11. Dr. Avant Kumar Sacheti, Reader, Vocationalization of Education Unit, was deputed to attend the UNESCO Study Group Meeting for Developing Instructional Materials for Productive Skills, held at Jakarta, Indonesia, from July 16 to 31, 1979.

He presented a paper on Work Experience and Socially Useful Productive Work Programmes in India, indicating the instructional materials for formal and non-formal system developed by the Council (NCERT) and other similar organisations like Indian Council of Agricultural Research in the field of Agriculture.

A Report of the visit to five vocational formal and non-formal institutions was also prepared.

12. Prof. R.C. Das, Head, Department of Teacher Education, and Dr. J.S. Grewal, Reader in Education, Regional College of Education, Bhopal, were deputed to attend the "Special Workshop on Educational Research", organised by the National Institute for Educational Research of Japan, Tokyo, from March 17 to 31, 1980.

13. Shri P.K. Bhattacharya, Head, Workshop Department, was deputed to participate in the Seminar on Methods of Teaching Science, organised by the Goethe Institute in Cairo from February 23 to March 4, 1980. The theme of the Conference was the development of subject matter in the science curricula of the primary school stage in Egypt.

14. Prof. M.M. Chaudhri, Head, Department of Teaching Aids, attended the Open University Conference on the Education of Adult at a Distance, held at Birmingham, UK, from November 18 to 23, 1979. Prof. Chaudhri presented a paper on "Open School System in India—Problems and Possibilities".

15. Prof. Shib K. Mitra, Director, NCERT, attended a Seminar on Design of Curricula held in Canberra, Australia, from September 11 to 18, 1979. The Seminar was convened by the Curriculum Development Centre, Canberra, in Collaboration with ACEID and with the Co-operation of Australian National Commission for UNESCO.

This meeting was attended by delegates from 14 countries from Asia and Oceania. Prof. Shib K. Mitra was elected as one of two Rapporteurs of the meeting. He was also elected the Chairman of one of the three Seminar Groups. Through visits to some schools as well as State and National Centres of Curriculum Development, he studied the relationship between curriculum development and its implementation. The final report deals with curriculum development for present and future needs, strategies of curriculum development, its evaluation and its relationship with teacher training.

16. Prof. B.S. Parakh, Head, DESSH, was deputed by the Council to attend a meeting for the planning of a "Handbook of Guidelines for Classrooms Teachers on the Implementation of UNESCO Recommendations Concerning Education for International Understanding, Co-operation and Peace and Education relating to Human Rights and Fundamental Freedom", held at London, from December 3 to 7, 1979.

The meet evolved a blueprint of a handbook to be prepared by the UNESCO on 'Universality and Diversity of Human Culture'. He was also assigned a chapter of the same which is under preparation.

17. Dr. G.K. Lahri, Reader in Zoology, Regional College of Education, Bhopal, and Shri S.R. Rao, Field Adviser, Bangalore, were deputed to participate in the Sub-regional Workshop on Designing and Developing Innovative Science Curriculum and Instructional Material, held in Sri Lanka from December 10 to 22, 1979. Prior to the Sub-regional Workshop, a national workshop on Designing and Developing Innovative Science Curriculum and Instructional Material was organised by the NCERT's Regional College of Education, Bhopal, from November 22 to 27, 1979.

18. Dr Pritam Singh and Dr. C.S. Subha Rao, Readers in the Department of Measurement and Evaluation, and Department of Teacher Education, respectively, visited Mauritius from 29 July 1979 to 15th August, 1979, to assist Mauritian authorities for conducting

Summer Schools in the areas of Examination Techniques and Teacher Training for Inspectors and Supervisors, at Mahatma Gandhi Institute, Mauritius.

19. Dr. S.G. Gangoli and Dr. N.K. Jangira, Readers in the Department of Education in Science and Mathematics, and Department of Teacher Education, respectively, visited Belgium from the 14th to 27th January, 1980 for study in the areas of Textbook Preparation and Teacher Education respectively.

Deputation of Council's Officers Abroad for Advance Training

1. Mr. K.C. Nautiyal, Joint Secretary of the APEID Secretariat, was deputed to attend a three-month training course at UNESCO Headquarters, Paris. The aim of the training course was to help the APEID member States to familiarise with the activities of the APEID and its working methods and to acquire practical experience of the functioning of the Secretariat and become acquainted with UNESCO's programmes.

He was placed for in-depth study in the Division of Equality of Educational Opportunities and Special Programmes. He also contributed a paper on "Nutrition in Educational Planning in the Third World Countries" in one of the inter-sectoral meetings of experts on nutrition in educational planning.

2. Dr. P.C. Eapan, Reader in Education, Regional College of Education, Mysore, was deputed by the Council to participate in the Regional workshop for compilation of Joint Study on Moral Education in Asian Countries, organised by the National Institute for Educational Research (NIER) at Tokyo, from February 19 to March 18, 1980. Prof. Anil Vidyalkar, Department of Education in Social Sciences & Humanities, also participated in the same workshop as an invitee of the NIER.

8. Dr. Chhotan Singh, Reader-in-Charge, CCE Cell, was deputed to participate in the International Symposium on "World Trends in Science Education", organised by the Atlantic Institute of Education Halifax, Canada, from August 12 to 15, 1979. The main theme of the Symposium was science education at the elementary and secondary levels, particularly the trends and problems in science curriculum development and science teacher education. In the International symposium, he presented a paper entitled 'Continuing Education for

Secondary School Teachers and Primary Teacher Education—An innovative Indian Scheme'. He was elected member of International Committee for the Advancement of Mass Scientific Technological Education.

4. Dr. Chhotan Singh, Reader-in-Charge, CCE Cell, was deputed to attend the training course for Administrators of In-service Teacher Education Programme, organised by the International Training Institute, Australia, from September 1979 to December 12, 1979. He visited different education centres/teacher centres/professional in-service teachers training centres in Canberra, New South Wales and Victoria, and the Australian Curriculum Development Centre. He also prepared a paper 'Some Reflections on In-service Education of School Teachers in Australia and India'.

Council's Officers Who Went Abroad on Special Assignments

1. Dr. (Mrs.) U. Bevli, Reader, Child Study Unit, and Mrs. Uma Banerjee, Headmistress, Child Study Unit, were deputed by the Ministry of External Affairs, under the ITEC programme of the Govt. of India, to the Republic of Maldives for 1½ months to re-plan the existing Maldives education system.

She advised and assisted the Government of Maldives, regarding implementation of pre-school programme in Male. The programme was carried out in collaboration with the Ministry of External Affairs, UNICEF and NCERT.

17

Receipts and Payments

During the year 1979-80, the Council received a grant of Rs. 4,63,86,185/- from the Government of India. In addition, the Council realised an amount of Rs 1,40,29,214/- from the sale of publications, while miscellaneous receipts amounted to Rs. 50,27,530/-

besides the balance of Rs. 74,55,404/- left with the Council out of the grant released by the Government during 1978-79, which was also carried over to the year 1979-80.

As against the above mentioned funds, the Council incurred an expenditure of Rs. 5,90,90,199/- under Non-Plan, and Rs. 88,96,431/- under the Plan Section. Besides, an expenditure of Rs. 31,33,293/- was also incurred against the specific grant.

**PROVISIONAL STATEMENT OF RECEIPTS AND PAYMENTS
ACCOUNT FOR THE YEAR 1979-80 OF NCERT**

<i>Receipts</i>	<i>Amount</i>	<i>Payments</i>	<i>Amount</i>
Opening Balance	Rs. 74,55,404.00	Non-Plan	Rs. 5,90,90,199.00
Grant from the Ministry of Education		Pay & Allowances Programmes and Contingent and other expenditure.	
Non-Plan 3,38,86,185.00		Plan Programmes	Rs. 88,96,431.00
Plan 1,25,00,000	Rs. 4,63,86,185.00	Pay and Allowances Contingent and other expenditure.	
Grants from various Ministries for specific schemes	Rs. 47,43,789.00	Expenditure on Schemes sponsored by other Ministries/Bodies	Rs. 31,62,725.00
Receipts from sale of Publication	Rs. 1,40,29,214.00	GPF/CPF Payments	Rs. 31,33,293.00
Misc. Receipts including rent of residential quarters.	Rs. 50,27,530.00	Loans Remittances Deposits, Suspense and Advances	Rs. 5,85,74,816.00
GPF/CPF Receipts	Rs. 53,65,175.00	Closing Balance	Rs. 57,65,697.00
Loans Remittances Deposits Suspense and Advance	Rs. 5,56,15,864.00		
Total Receipts :	Rs. 13,86,23,161.00	Total Payments :	Rs. 13,86,23,161.00

APPENDICES

Appendix A

**Grants given by the Council to Professional Educational Organisations
during 1979-80**

<i>Sl. No.</i>	<i>Name of the Organisations</i>	<i>Amount</i>
2		3
1.	S.I.T.U. Council of Education Research, Madras.	Rs. 3,000/-
2.	English Language Teachers Association of India, Madras	Rs. 5,000/-
3.	Association for the Promotion of Science Education, Madras.	Rs. 3,000/-
4.	Indian Academy of Social Sciences, Allahabad.	Rs. 5,000/-
5.	All India Science Teachers Association, New Delhi.	Rs. 5,500/-
6.	Indian Association for Pre-School Edu- cation, Coimbatore.	Rs. 4,000/-
		(For Annual Conference)
		Rs. 2,500/-
		(For Publication of Journal)
7.	Banjiya Bijnan Parishad, Calcutta.	Rs. 3,000/-
8.	Association of Geography Teachers of India, Madras.	Rs 3,405.10
9.	Sri Ramakrishna Mission Vidyalaya, Coimbatore.	Rs. 13,380/-
10.	Sri Vivekananda Vidya Parishad, Neilore.	Rs. 3,000/-
11.	Indian Association for Programmed Learn- ing & Educational Innovations, Surat.	Rs. 5,000/-
12.	Majlis Ishaat-E-Adab, 4886, Paras Nath Marg, Sadar Bazar, Delhi-110006.	Rs. 7,500/-

Appendix B

Location of Field Advisers in the States

	State/U.T. Covered
1. Shri D.N. Bezboruah, Field Adviser (NCERT), Zoo Road, Gauhati-781024	Assam Arunachal Pradesh
2. Dr. M. Haridas, Field Adviser (NCERT), Geetanji, T.C. No. 15/1019, Jagathy, Trivandrum-14	Kerala LMA Islands
3. Shri P.S.N. Rao, I/c Field Adviser (NCERT) 3-6/147-2, Himayat Nagar, Hyderabad-500029	Andhra Pradesh
4. Shri H.N. Gupta, Field Adviser (NCERT), B-47, Prabhu Marg, Tilak Nagar, Jaipur-302004.	Rajasthan
5. Dr. D.C. Upreti, Field Adviser (NCERT) MIG-161, Block No. 6, Saraswati Nagar, Jawahar Chowk, Bhopal-462017.	Madhya Pradesh
6. Shri Prabhakar Singh, Field Adviser (NCERT), 555/E, Mumfordganj, Allahabad (U.P.)-211002.	Uttar Pradesh
7. Shri S.K. Gupfa, Field Adviser (NCERT), Homi Bhabha Hostel, R.C.E. Campus, Bhubaneswar-751007.	Orissa
8. Shri S.R. Rao, Field Adviser (NCERT), 714, 9th Cross, West of Chord Road, Rajaji Nagar. Bangalore-560010.	Karnataka

- | | | |
|-----|--|--|
| 9. | Shri B.P. Misra,
Field Adviser (NCERT),
1-B, Chandra Colony,
Ahmedabad-380006. | Gujarat
Dadra & Nagar Havell |
| 10. | Shri W.A.F. Hopper,
Field Adviser (NCERT)
No. 32, Hindi Prachara-Sabha Street, T. Nagar,
Madras-600017. | Tamil Nadu
Pondicherry |
| 11. | Shri S.L. Gajwani,
Field Adviser (NCERT)
128/2, Kothrud, Karve Road,
(Near Maruti Mandir Bus Stop)
Pune-411029. | Maharashtra
Goa |
| 12. | Shri C. Bhattacharya,
Field Adviser (NCERT),
P. 23, C.I.T. Road,
(L.V. Scheme)
Calcutta-700014. | West Bengal
A & N Islands
Sikkim |
| 13. | Dr. S.P. Sharma,
Field Adviser (NCERT),
Road No. 2,
Rajendra Nagar,
Patna-800016. | Bihar |
| 14. | Dr. M.R. Chilana,
Field Adviser (NCERT)
House No. 23, Sector-8 (A)
Chandigarh-160018. | Punjab
Himachal Pradesh
Chandigarh |
| 15. | Dr. S. Prasad,
Field Adviser (NCERT),
Nizam Manzil,
Sher-i-Kashmir Colony,
Sector-2, Rampura,
Chattabal P.O. Karan Nagar,
Srinagar (J & K)-190010 | Jammu & Kashmir |
| 16. | Shri D.N. Bezboruah,
Field Adviser (NCERT),
C/o State Institute of Edn.,
Govt. of Manipur,
Imphal-795001. | Manipur
Nagaland |
| 17. | Dr. M.N. Singh,
Field Adviser (NCERT),
Donbosco Shillong College Road,
Litumkhra,
Shilong-793003. | Tripura
Mizoram
Meghalaya |
| 18. | Shri R.B. Banerji,
Field Adviser (NCERT),
P.G. Hostel, NIE Campus,
New Delhi-110016. | Delhi
Haryana |

THE COUNCIL

**Members of the National Council of Educational Research and Training
GENERAL BODY**

(Under Rule 3 of the Council)

From 1.4.1979 to 5.7.1979

- | | |
|---|---|
| (i) The Minister for Education and Social Welfare
President—Ex-Officio | 1. Dr. P.C. Chunder
Union Minister for Education
Shastri Bhavan,
New Delhi-1 |
| (ii) Chairman of the University Grants Commission
Ex-Officio | 2. Prof. Satish Chandra
Chairman
University Grants Commission
Bahadur Shah Zafar Marg
New Delhi-1 |
| (iii) Secretary to the Ministry of Education & Social Welfare
Ex-officio | 3. Shri P. Sabanayagam
Secretary, Ministry of Education
Shastri Bhavan
New Delhi-1 |
| (iv) Four Vice-Chancellors of Universities, one from each Region, nominated by the Government of India (for 2 years w.e.f. 1.10.78). | 4. Dr. S.K. Mukherjee
Vice-Chancellor
Calcutta University
Calcutta (West Bengal) |
| | 5. Shri S.S. Wodeyer
Vice-Chancellor
Karnatak University
Dharwar (Karnataka) |
| | 6. Shri Ishwarbhai J. Patel
Vice-Chancellor
Gujarat University
Ahmedabad (Gujarat) |
| | 7. Dr. A.M. Khusro
Vice-Chancellor
Aligarh Muslim University
Aligarh (U.P.) |
| (v) One representative of each State Govt. 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
Shillong |
| | 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 & Kashmir
Srinagar
15. Education Minister
Kerala
Trivendrum
16. Education Minister
Madhya Pradesh
Bhopal
17. Education Minister
Maharashtra
Bombay
18. Educational 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
Govt. of Goa, Daman & Diu
Panaji (Goa)
32. Education Minister
Mizoram
Aizal
33. Education Minister
Govt. of Pondicherry
Pondicherry-1
34. Smt. Renuka Devi
Barkafaki
Minister of State
Ministry of Education
Shastri Bhavan
New Delhi
35. _____
36. Dr. Shib K. Mitra
Director
National Council of Educational
Research and Training
Sri Aurobindo Marg,
New Delhi-110016
37. Prof. M. V. Mathur
Director
National Staff
College for Educational Planners
and Administrators
New Delhi

(vi) All Members of the Executive
Committee not included above

38. Prof. C.N. R. Rao
Indian Institute of Science
Bangalore (Karnataka)
39. Smt. Anutai Vagh, Sanchalika,
Gram Bal Shiksha Kendra, Vikaswadi,
Kosbad Hill, Tal. Dhanu, Distt. Thana,
(Via Dhanu
Road Station W. Rly)
Maharashtra
40. Shri A.A. Kaifi
Mughal Bagh
Bagwan Pura
Lal Bazar
Sri Nagar (J&K)
41. Prof. A.N. Bose
Joint Director
National Council of
Educational Research
and Training
New Delhi
42. Prof. B.S. Parakh
Head of DESSH, NCERT
New Delhi-16
43. Prof. R.C. Das
Dean (A) and Head
of the Department
of Teacher Education
NCERT
New Delhi-16
44. Dr. K.P. Nayak
Principal
Regional College of
Education
Mysore (Karnataka)
45. Mrs. J. Anjani Dayanand,
Joint Secretary
Ministry of Education
Shastri Bhavan
New Delhi
45. Shri J.A. Kalyanakrishnan
Financial Adviser
Ministry of Education
NCERT
Room No. 109 'C'
Shastri Bhavan
New Delhi-1

- (vii) Such other persons, not exceeding twelve, as the Govt. of India, may, from time to time, nominate Not less than four of these shall be school teachers (Nominated for 2 years w.e.f. 1.10.78.)
47. Shri Gopal rishan
Saini
Headmaster
Govt. Primary School
Mukhlina
District : Hoshiapur
(Punjab)
48. Smt. Kamala Dubey
Headmistress
Girls Primary School
Mohan Nagar
Sagar (M.P.)
49. Shri Nanimadhab Barua
Principal
Govt. Boys Hr. Sec.
School
Tezpur, Distt Darrang
Assam
50. Sister Rachel
Headmistress
Mount Garmel High
School for Girls
Kanjikushy
Kottayam
Kerala
51. Chairman
Central Board of
Secondary Education
17-B, Indraprastha
Estate
New Delhi-2
52. Comissioner
Kendriya Vidyalaya
Sangathan
Nehru House
4-Bahadur Shah Zafar Marg
New Delhi-2
53. Director
Central Health
Education Bureau
(DGHS)
Nirman Bhavan
New Delhi-1
54. Deputy Director
General Incharge of
Agricultural Education
ICAR
Ministry of Agriculture
Dr. Rajendra Prasad
Road
New Delhi-1

(viii) Special invitee

55. Director of training
Directorate General
of Training and
Employment
Ministry of Labour
Shram Shakti Bhavan
Rafi Marg
New Delhi
56. Chief (Education)
Planning Commission
Yojana Bhavan
Parliament Street
New Delhi-1
57. Shri T.K. Vaidyanathan
Principal
Technical Teachers
Training Institute
Sector-26
Chandigarh-160026
58. Dr. A.K. De
Director
Indian Institute of
Technology
POWAI
Bombay-400076
59. Secretary
Council of Indian
School Certificate
Examination
Pragati House
3rd floor
47-Nehru Place
New Delhi-21
60. Shri V.K. Pandit
Secretary
National Council of
Educational Research
and Training
New Delhi-110016

—Secretary

MEMBERS OF THE NATIONAL COUNCIL OF EDUCATIONAL
RESEARCH AND TRAINING

GENERAL BODY

(Under Rule 3 of the Council)

(From 6.7.1979 to 31.3.80)

- | | |
|--|--|
| (i) The Minister for Education and Social Welfare—
President—Ex-Officio | 1. Dr. Karan Singh
Union Minister for Education
Shastri Bhavan
New Delhi
(from July, 79 to January, 1980)

Shri B. Shankaranand
Union Minister for Education
Shastri Bhavan
New Delhi
(from 14.1.80) |
| (ii) Chairman of the University Grants Commission—
Ex-Officio | 2. Prof. Satish Chandra
Chairman, University Grants Commission,
Bahadur Shah Zafar Marg
New Delhi-1 |
| (iii) Secretary to the Ministry of Education and Social Welfare—
Ex-Officio | 3. Shri P. Sabanayagam
Secretary
Ministry of Education
Shastri Bhavan
New Delhi-1 |
| (iv) Four Vice-Chancellors of Universities, one from each Region, nominated by the Government of India; (for 2 years w.e.f. 1.10.78) | 4. Dr. R.K. Poddar
Vice-Chancellor
Calcutta University
Calcutta (West Bengal)

5. Shri S.S. Wodeyer
Vice-Chancellor
Karnatak University
Dharwar (Karnataka)

6. Shri Ishwarbhai J. Patel
Vice-Chancellor
Gujarat Agricultural University
Sardarkrishinagar
Dantiwada (Gujarat) |

(v) One representative of each State Govt. 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)

7. Dr. A.M. Khusró
Vice-Chancellor
Aligarh Muslim
University
Aligarh (U.P.)
8. Education Minister
Andhra Pradesh
Hyderabad
9. Education Minister-
Assam
Shillong
10. Education Minister
Bihar
Patna
11. Education Minister
Gujarat
Ahmedabad
12. Education Minister
Haryana
Chandigarh
13. Education Minister
Himachal Pradesh
Simla
14. Education Minister
Jammu & 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
Banglore
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
Govt. of Goa, Daman & Diu
Panaji (Goa)
32. Education Minister
Mizoram
Aizal

(vi) All members of the Executive Committee not included above

33. Education Minister
Govt. of Pondicherry
Pondicherry-1
34. Smt. Rashida Haque Chaudhury
Minister of State
Ministry of Education
Shastri Bhavan
New Delhi (from July, 1979 to
January, 1980)
35. _____
36. Dr. Shib K. Mitra
Director
National Council of Educational
Research and Training
Sri Aurobindo Marg
New Delhi-16
37. Prof. P.K. Bose
Centenary Professor & Head
Department of Statistics
University College of Science
35, Ballygunge Circular Road
Calcutta-700019
38. Shri 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. Smt. K.V. Ponnamma
Headmistress
St. Joseph's U.P.S.
Keezhumed
P.O. Erumathala
Alwaye (Kerala)
41. Dr. T.N. Dhar
Joint Director
National Council of
Educational Research and
Training
New Delhi-16

- (vii) Such other persons, not exceeding twelve, as the Govt. of India, may, from time to time, nominate. Not less than four of these shall be school teachers (Nominated for 2 years w.e.f. 1.10.78.)
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-753006
 44. Dr. A.K. Sharma
Professor in Science (Chemistry)
Regional College of Education
Mysore-570006
 45. Shri Anil Bordia
Joint Secretary (AE & YS)
Ministry of Education
Shastri Bhavan
New Delhi-1
 46. Shri J.A. Kalyanakrishnan
Financial Adviser
Ministry of Education
Room No. 109 'C'
Shastri Bhavan
New Delhi-1
 47. Shri Gopal Krishan Saini
Headmaster
Govt. Primary School
Mukhliana,
District : Hoshiarpur (Punjab)
 48. Smt. Kamala Dubey
Headmistress
Girls Primary School
Mohan Nagar
Sagar (M.P.)
 49. Shri Nanimadhab Barua
Principal
Govt. Boys' Hr. Sec. School
Tezpur, Distt. Darrang
Assam
 50. Sister Rachel
Headmistress
Mount Garmel High School for
Girls Kanjikuzhy,
Kottayam—Kerala

51. Chairman
Central Board of Secondary Education
17-B Indraprastha Estate
New Delhi-2
52. Commissioner
Kendriya Vidyalaya
Sangathan
Nehru House
4-Bahadur Shah-Zafar Marg,
New Delhi-2
53. Director
Central Health
Education Bureau
(D.G.H.S.)
Nirman Bhavan
New Delhi-1
54. Deputy Director
General Incharge of Agricultural
Education, ICAR
Ministry of Agriculture
Dr. Rajendra Prasad Road
New Delhi-1
55. Director of Training
Directorate General of Trg. and
Employment,
Ministry of Labour
Shram Shakti Bhavan
Rafi Marg
New Delhi-1
56. Chief (Education
Planning Commission
Yojna Bhavan
Parliament Street
New Delhi-1
57. T.K. Vidyanathan
Principal
Technical Teachers'
Training Institute
Sectors-26
Chandigarh-160026
58. Dr. A.K. De
Director
Indian Institute of Technology
Powai
Bombay-400076

Special invitee :

59. Secretary
Council of Indian School
Certificate Examination
Pragati House
3rd floor
47-Nehru Place
New Delhi-25
60. Shri V.K. Pandit
Secretary
National Council of Educational
Research and Training
New Delhi

—Secretary

EXECUTIVE COMMITTEE

(1.4.1979 to 5.7.1979)

- | | |
|--|---|
| (i) President of the Council who shall be the ex-officio President of the Executive Committee | 1. Dr. P.C. Chunder
Union Minister of Education
Shastri Bhavan
New Delhi |
| (ii) (a) The Minister of State in the Ministry of Education and Social Welfare who shall be the ex-officio Vice-President of the Executive Committee | 2. Smt. Renuka Devi
Barkataki
Minister of State
Ministry of Education
Shastri Bhavan
New Delhi |
| (b) A Deputy Minister in the Ministry of Education and Social Welfare nominated by the President, NCERT | 3. _____ |
| (c) Director of the Council | 4. Prof. S.K. Mitra
Director
National Council of Educational Research and Training
New Delhi |
| (iii) Chairman of the University Grants Commission Member (ex-officio) | 5. Prof. Satish Chandra
Chairman
University Grants Commission
Bahadur Shah Zafar Marg
New Delhi |
| (iv) Four educationists with known interest in school education (two of whom shall be school teachers) nominated by the President | 6. Prof. M.V. Mathur
Director
National Staff College for Educational Planners and Administrators
New Delhi |

7. Prof. C.N. R. Rao
Indian Institute of
Science
Malleswaram
Bangalore—560 012
(Karnataka)
8. Smt. Anutai Vagh
Sanchalika, Gram Bal
Shiksha Kendra
Vikaswadi-Kasbad Hill
Tal. Dahanu, Distt. Thana
(Via Dahanu Road Stn.,)
Western Railway
Maharashtra
(Pin Code—401 703)
9. Shri A.A. Kaifi
Mughal Bagh
Bagwan Pora, Lal Bazar
Srinagar (J & K)
(Pin Code-190 011)
- (v) Joint Director of the Council
10. Dr. A.N. Bose
Joint Director
National Council of
Educational Research
and Training
New Delhi
- (vi) Three members of the Faculty of
the Council, of whom at least two
shall be of the level of Professors
and Heads of Departments, nomi-
nated by the President of the
Council
11. Prof. B.S. Parakh
Head, DESSH
NCERT
New Delhi
12. Dr. R.C. Das
Dean (A) and Head of
the Department of
Teacher Education,
NCERT, New Delhi
13. Dr. K.P. Nayak
Principal
Regional College of
Education, Mysore
- (vii) One representative of the Ministry
of Education and Social Welfare;
and
14. Mrs. J. Anjani Dayanand
Joint Secretary
Ministry of Education
Shastri Bhavan
New Delhi

(viii) One representative of the Ministry of Finance, who shall be the Financial Adviser of the Council

15. Shri J.A. Kalyan Krishnan
Financial Adviser
Ministry of Education
NCERT

Room No. 109, 'C'
Rajendra Prasad Bhawan
New Delhi

16. Shri V.K. Pandit
Secretary
National Council of
Educational Research
and Training
Sri Aurobindo Marg
New Delhi

—Secretary

EXECUTIVE COMMITTEE

(6.7.1979 to 31.3.1980)

- | | |
|---|--|
| (i) President of the Council who shall be the ex-officio President of the Executive Committee | 1. Dr. Karan Singh
Union Minister of Education
Shastri Bhavan
New Delhi (From July, 1979 to January, 1980)

Shri B. Shankaranand
Union Minister of Education
Shastri Bhavan
New Delhi (from 14.1.1980) |
| (ii) (a) The Minister of State in the Ministry of Education and Social Welfare, who shall be the ex-officio Vice-President of the Executive Committee | 2. Smt. Rashida Haque Choudhury
Minister of State
Ministry of Education
Shastri Bhavan
New Delhi (From July, 1979 to January, 1980) |
| (b) A Deputy Minister in the Ministry of Education and Social Welfare nominated by the President, NCERT | 3. _____ |
| (c) Director of the Council | 4. Prof. S.K. Mitra
Director
National Council of Educational Research and Training
New Delhi—110 016 |
| (iii) Chairman of the University Grants Commission
Member ex-officio | 5. Prof. Satish Chandra
Chairman
University Grants Commission,
Bahadur Shah Zafar Marg,
New Delhi |

(iv) Four Educationists with Known interest in school education (two of whom shall be school teachers) nominated by the President

6. Prof. P.K. Bose
Centenary Professor
& Head, Department of
Statistics, University
College of Science
35, Ballygunge Circular
Road
Calcutta—700 019

7. Shri V.G. Kulkarni
Tata Institute of
Fundamental Research,
Homi Bhabha Centre for
Science Education,
Bhabha Road
Bombay—400 005

8. Smt. Abala Gohain
Principal
Balya Bhavan
Jorhat (Assam)

9. Smt. K.V. Ponnamma
Headmistress
St. Joseph's U.P.S.
Keeshumad
P.O. Erumathala
Alwaye (Kerala)

(v) Joint Director of the Council

10. Dr. T.N. Dhar
Joint Director
National Council of
Educational Research
and Training
New Delhi

(vi) Three members of the Faculty of the Council of whom at least two shall be at the level of Professors and Heads of Departments, nominated by the President of the Council

11. Shri S.H. Khan
Reader
Primary Curriculum
Development Cell
NCERT, New Delhi

12. Dr. G.B. Kanungo
Principal
Regional College of
Education,
Bhubaneswar-751007

13. Dr. A. K. Sharma
Professor in Science
(Chemistry)
Regional College of
Education
Mysore-570006

- (vii) One representative of the Ministry of Education and Social Welfare; and
- (viii) One representative of the Ministry of Finance, who shall be the Financial Adviser of the Council
14. Shri Anil Bordia
Joint Secretary (AE&YS)
Ministry of Education
Shastri Bhavan
New Delhi
15. Shri J.A. Kalyanakrishnan
Financial Adviser,
Ministry of Education
NCERT
Room No. 109 'C'
Shastri Bhavan
New Delhi
6. Shri V.K. Pandit
Secretary
National Council of
Educational Research &
Training,
New Delhi-16

—Secretary

ESTABLISHMENT COMMITTEE

(1.4.79 to 31.3.80)

- | | |
|---|---|
| (i) Director, NCERT | 1. Prof. S.K. Mitra—Chairman
Director, NCERT |
| (ii) Joint Director, NCERT | 2. Dr. A.N. Bose
Joint Director
NCERT
(1.4.79 to 4.7.79)

Dr. T.N. Dhar
Joint Director
NCERT
(from 5.7.79) |
| (iii) A nominee of the Ministry of Education to be nominated by the President. | 3. Mrs. J. Anjani Dayanand
Joint Secretary
Ministry of Education
Shastri Bhavan
New Delhi
(from 1.4.79 to July, 79)

Shri Anil Bordia
Joint Secretary
Ministry of Education
Shastri Bhavan
New Delhi
(From July, 79) |
| (iv) For educationists to be nominated by President of whom at least one is a scientist | 4. Prof. M.S. Sodha
Department of Physics
Indian Institute of
Technology
Hauz Khas
New Delhi—110 C29

5. Prof. (Miss) Malathi Bolar
Director
Institute of Applied
Manpower Research,
Indraprastha Estate
Ring Road
New Delhi—110 002 |

6. Dr. Amrik Singh
Vice-Chancellor
Panjabi University
Patiala (Punjab)
7. Prof. S. Manzoor Alam
Department of Geography
Osmania University
Hyderabad-500 007 (A.P.)
- (v) One representative from the Regional Colleges of Education to be nominated by the President
8. Shri S.N. Saha
Principal
Regional College of Education, Ajmer
(1.4.79 to 1.7.79)
- Prof. J.S.Rajput
Principal
Regional College of Education, Bhopal
(From 21.7.79)
- (vi) One representative of the National Institute of Education, Delhi to be nominated by the President
9. Dr. R.C. Das, Dean (A) and Head of the Department of Teacher Education
NCERT
- (vii) Two representatives, one each from the regular academic and non-academic staff of the Council
10. Prof. R.P. Singh
Professor
NCERT (1.4.79 to 30.9.79)
- Shri Balagopala Verma
Lecturer
Regional College of Education, Mysore
(From 8.2.80)
11. Shri K.M. George
Section Officer
NCERT
(1.4.79 to 30.9.79)
- Shri Prabodh Kumar
UDC, DESSH
NCERT
(from 8.2.80)

**(viii) Financial Adviser
NCERT**

**12. Shri J.A. Kalyan Krishnan
Financial Adviser
Ministry of Education
NCERT
Room No. 109 'C'
Shastri Bhavan
New Delhi**

**(ix) Secretary
NCERT**

**13. Shri V.K. Pandit
Secretary,
NCERT**

—Member Convenor

FINANCE COMMITTEE

(1.4.79 to 291.12.79)

1. Prof. S.K. Mitra —Chairman
Director
National Council of
Educational Research
and Training
New Delhi
2. Shri Anil Bordia
Joint Secretary (AE & YS)
Ministry of Education
Shastri Bhavan
New Delhi
3. Prof. M.V. Mathur
Director
National Staff College for
Educational Planners and
Administrators
New Delhi
4. Prof. C.N.R. Rao
Indian Institute of Science
Bangalore
5. Shri J.A. Kalyanakrishnan
Financial Adviser
Ministry of Education
NCERT
Room No. 109 'C'
Shastri Bhavan
New Delhi
6. Shri V.K. Pandit —Convenor
Secretary
NCERT

BUILDING AND WORKS COMMITTEE

(1.4.79 to 7.1.80)

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| 1. Director, NCERT
(Ex-Officio) | 1. Prof. S.K. Mitra—Chairman
Director
NCERT |
| 2. Joint Director, NCERT
(Ex-Officio) | 2. Dr. T.N. Dhar
Joint Director
NCERT |
| 3. Chief Engineer
C.P.W.D.
or his nominee | 3. Shri N. Lakshmiah
Superintending Survey or
of Works (Food), CPWD
Indraprastha Bhavan
Indraprastha Estate
New Delhi |
| 4. A Representative of the Ministry of
Finance (Works) | 4. Shri Mehr Singh, A.F.A.
Ministry of Finance (Works)
Nirman Bhavan (Third Floor)
New Delhi |
| 5. The Consulting Architect of the
Council | 5. Shri K.M. Saxena
Senior Architect (C)
C.P.W.D.
Nirman Bhavan
New Delhi |
| 6. Financial Adviser of the Council or
his nominee | 6. Shri J. A. Kalyan Krishnan
Financial Adviser
Ministry of Education
(NCERT)
Room No. 109 'C'
Shastri Bhavan
New Delhi |
| 7. A nominee of the Ministry of Educa-
tion and Social Welfare | 7. Shri Anil Bordia
Joint Secretary (AE & YS)
Ministry of Education
Shastri Bhavan
New Delhi |

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| 8. A Civil Engineer of Standing (nominated by the President) | 8. Prof. H.U. Bijlani
Housing and Urban
Development Corporation
Jamnagar House
New Delhi |
| 9. An Electrical Engineer of Standing (nominated by the President) | 9. Shri I.C. Sangar
Addl. Chief Engineer (D)
Delhi Electric Supply
Undertaking
Link House
New Delhi |
| 10. A member of the Executive Committee nominated by the President | 10. Prof. M.V. Mathur
Director
National Staff College
for Educational Planners
and Administrators
New Delhi—16 |
| 11. Secretary, NCERT | 11. Shri V.K. Pandit
Secretary
NCERT |

PROGRAMME ADVISORY COMMITTEE

1. **Prof. Shib K. Mitra**
Director
Chairman
2. **Dr. T.N. Dhar**
Joint Director
Vice-Chairman
3. **Dr. S.B. Adaval**
Professor and Head
Department of Education
University of Allahabad
Allahabad
4. **Prof. R.K. Yadav**
Old D-1, Banaras Hindu University
Varanasi—221005
5. **Dr. N. Vedamani Manuel**
Professor and Head
Department of Education
University of Kerala, Thycaud
Trivandrum—14
6. **Dr. A.W. Oak**
Department of Research
Premconverbai Vithaldas
Damodar Thackersey College
of Education for Women
1, Nathibai Thackersey Road
Bombay—10
7. **Prof. (Miss) Philomena Andrew**
Women's Training College
Department of Education (Campus)
Patna University
Patna
8. **Director**
State Council of Educational
Research and Training
Alia School Compound
Hyderabad—500002

9. Vice-Principal-in-Charge
State Institute of Education
P.O. Banipur
Distt. 24 Parganas (W.B.)
10. Principal
State Institute of Education
Allahabad (U.P.)
11. Director
State Institute of Education
Raikhad
12. Director
State Institute of Education
Govt. College of Education
Srinagar (J & K)
13. Head of the Department
Department of School Education
NCERT, New Delhi
14. Prof. Baquer Mehdi
Department of School Education
NCERT, New Delhi
15. Head of the Department
Department of Education in
Science and Mathematics
NCERT, New Delhi
16. Prof. B. Ganguli
Department of Education in
Science and Mathematics
NCERT, New Delhi
17. Head of Department
Department of Education in Social
Sciences and Humanities, NCERT
New Delhi
18. Prof. Anil Vidyalankar
Department of Education in Social
Sciences and Humanities
NCERT, New Delhi
19. Head of the Department
Department of Teacher Education
NCERT, New Delhi
20. Prof. P.N. Dave
Department of Teacher Education
NCERT, New Delhi

21. Head of the Department
Department of Educational
Psychology and Foundations
of Education
NCERT, New Delhi
22. Prof. Perin H. Mehta (Mrs.)
Department of Educational Psychology
and Foundations of Education
NCERT, New Delhi
23. Head of the Department
Department of Textbooks
NCERT, New Delhi
24. Prof. K. G. Rastogi
Non-Formal Education
Department of Textbooks
NCERT, New Delhi
25. Head of the Department
Department of Teaching Aids
NCERT, New Delhi
26. Dr. Nalini Nandchahal
Reader
Department of Teaching Aids
NCERT New Delhi
27. Head of the Department
Publication Department
NCERT, New Delhi
28. Miss K. Wadia
Editor
Publication Department
NCERT, New Delhi
29. Head of the Department
Workshop Department
NCERT, New Delhi
30. Shri R.K. Gupta
Reader
Workshop Department
NCERT, New Delhi
31. Principal
Regional College of Education
Ajmer
32. Prof. N. Vaidya
Regional College of Education
Ajmer

33. Principal
Regional College of Education
Bhopal
34. Prof. S.N. Tripathi
Regional College of Education
Bhopal
35. Principal
Regional College of Education
Bhubaneswar
36. Prof. (Mrs.) G.R. Ghosh
Regional College of Education
Bhubaneswar
37. Principal
Regional College of Education
Mysore
38. Prof. A.K. Sharma
Regional College of Education
Mysore
39. Principal
Centre for Educational Technology
NCERT, New Delhi
40. Prof. (Mrs.) S. Shukla
Centre for Educational Technology
NCERT, New Delhi

ADVISORY COMMITTEE FOR SCHOOL CURRICULUM

- | | |
|---|----------|
| 1. Prof. Shib K. Mitra
Director, NCERT | Chairman |
| 2. Dr. T.N. Dhar
Joint Director, NCERT | Member |
| 3. Prof. B. Ramachandra Rao
Vice-Chairman, U.G.C.
Bahadur Shah Zafar Marg
New Delhi | Member |
| 4. Prof. R.C. Paul
Vice-Chancellor
Punjab University
Chandigarh | Member |
| 5. Prof. G.R. Damodaran
Vice-Chancellor
University of Madras
Madras | Member |
| 6. Prof. Rasheeduddin Khan
Chairman, Centre for Political
Studies, School of Social
Science, Jawaharlal Nehru
University, New Delhi | Member |
| 7. Dr. Suma Chitnis
Professor
Tata Institute of Social Sciences
Sion-Trombay Road
Deonar, Bombay | Member |
| 8. Dr. Amrik Singh
Secretary
Association of Indian Universities
Dindayal Upadhyaya Marg
New Delhi | Member |
| 9. Dr. Rajammal P. Devadas
Principal, Sri Avinashilingam
Home Science College for Women
Coimbatore | Member |

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| 10. Prof. S.M. Chatterji
98/39, Gopal Lal Tagore Road
Calcutta | Member |
| 11. Dr. Gopal Singh
Chairman
World Sikh University Press
7, Poorvi Marg
Vasant Vihar
New Delhi | Member |
| 12. Shri V.G. Kulkarni
Project Leader
Tata Institute of Fundamental
Research, Homi
Bhabha Centre for Science Education
Homi Bhabha Road
Bombay—400005 | Member |
| 13. Dr. Mohammad Ahmad
Reader in Medicine
Jawaharlal Nehru Medical College
Aligarh Muslim University
Aligarh | Member |
| 14. Shri N.N. Kapur
Director
Guru Shikar School
Mount Abu
Rajasthan | Member |
| 15. Dr. S.N. Mehrotra
Vice-Chancellor
Agra University
Agra | Member |
| 16. Prof. B.K. Roy Burman
Department of Rura' Studies
Visva-Bharati
District Birbhum
Sriniketan—731 236
West Bengal | Member |
| 17. Mrs. Ashma Chaudhuri
Principal
South Delhi Polytechnic for Women
N-9, Ring Road
South Extension Part I
New Delhi—110 049 | Member |
| 18. Dr. Prem Kirpal
53-F, Block Sujan Singh Park
New Delhi—110 003 | Member |

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| 19. Dr. P.L. Malhotra
Principal
College of Vocational Studies
University of Delhi
Delhi—110 007 | Member |
| 20. Prof. L.P. Agarwal
Director
All India Institute of Medical
Sciences
Ansari Nagar
New Delhi—110 016 | Member |
| 21. Dr. Nagendra
Professor of Hindi
University of Delhi
16, Cavalry Lines
Delhi—110 007 | Member |
| 22. Dr. (Mrs.) Usha K. Luthra
Sr. Deputy Director-General
Indian Council of Medical Research
Ansari Nagar
New Delhi—110 016 | Member |
| 23. Shri A.K. Dhan
Vice-Chancellor
North-Eastern Hill University
Shillong | Member |
| 24. Dr. Neera Desai
Prof. and Head
Department of Sociology
Department of Post-Graduate
Studies & Research
Shreemati Nuthobai Damodal
Thackersey University
Bombay—20 | Member |
| 25. Prof L.K. Mahapatra
Head, Department of Anthropology
Utkal University
Vani Vihar
Bhubaneswar (Orissa) | Member |
| 26. Dr. K.R. Srinivasa Iyengar
152—Kutchery Road
Mylapore
Madras—600 004 | Member |
| 27. The Principal
Netarhat School
P.O. Netarhat (Via Ranchi)
Bihar | Ex-Officio Member |

	Ex-Officio Member
28. Commissioner Kendriya Vidyalaya Sangathan (Central Schools Organization) Nehru House Bahadur Shah Zaffar Marg New Delhi	
29. Assistant Director General (Education) Indian Council of Agricultural Research, Krishi Bhavan Dr. Rajendra Prasad Road New Delhi	—do—
30. Director of Primary Education Primary Education Directorate Govt. of West Bengal New Secretariat Building Calcutta (West Bengal)	—do—
31. Chairman Central Board of Secondary Education 17-B, Indraprastha Estate New Delhi	—do—
32. The Executive Chairman Council of Boards of Secondary Education in India 17-B, Indraprastha Estate New Delhi	—do—
33. Director State Institute of Education Govt. of Maharashtra Kumthekar Marg Poona (Maharashtra)	—do—
34. Secretary Council for the Indian School Certificate Examinations Pragati House, 47-48 Nehru Place New Delhi	—do—
35. Member-Secretary Indian Council of Social Science Research Indraprastha Estate New Delhi—110 002	—do—
36. Director Netaji Subhas National Institute of Sports Moti Bagh Patiala—147 001	—do—

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| 37. All the Heads of Departments/
Units etc., and Professors of
NIE | Permanent
Invitees |
| 38. Principal and Professor(s), CET | —do— |
| 39. Reader (Programmes) | —do— |
| 40. Prof. Baquer Mehdi
Head, Curriculum Group
NCERT, New Delhi—110 016 | Convenor |

Appendix D

MAJOR DECISIONS TAKEN BY THE COMMITTEES DURING 1979-80

The Executive Committee

The Executive Committee felt the need for special development programmes to meet the specific problems faced by the North-Eastern Region of the country and hence it was decided that a Centre of the Council might be established in the North-Eastern Region. Institutional collaboration might also be explored.

The Annual Report of the Council for the year 1978-79 was approved by the Executive Committee.

In order to ensure the respective roles of the NCERT vis-a-vis the States in the sphere of Non-Formal Education, a small group was established.

The Executive Committee approved the proposals for the amendment of the Rules of the Council as briefly indicated below :

Rule 3. Composition of the General Body

In order to ensure formal representation to the Central Board of Secondary Education, Kendriya Vidyalaya Sangathan, Central Health Education Bureau, Indian Council of Agricultural Research and Directorate General of Training and Employment, Ministry of Labour, and Planning Commission, Rule 3 (vii) was suitably amended to provide for representation of these institutions on the General Body of the Council ex-officio.

Rule 70 (iv) and Rule 71

In accordance with the decision of the Parliamentary Committee for the laying of papers, Rule 70 (iv) and Rule 71 of the Rules of the Council were amended incorporating the stipulation of laying of the Annual Report and the Audit Report of the Council, within 9 months of the close of the accounting year.

The Executive Committee approved the Introduction of Death Relief Scheme as a compulsory welfare measure.

The Finance Committee

Payment of Rs. 20/- per day to Resource Persons for the entire duration of the short term course was agreed. Enhancement of ceiling of expenditure on field trip to Rs.1000/- per Institute for 50 participants was also agreed to. Proposals for raw materials and contingencies were also agreed to.

The adoption of the rates charged by the Films Division of the Ministry of Information and Broadcasting for utilisation of recording facilities by outside parties in the Recording Studio of the C.E.T. was agreed. Such use by producers who are primarily engaged in production of educational films may be permitted subject to the availability of C.E.T. studio and equipment when the Council is not using them.

Donation of articles/materials developed under DEPFEE Project for use in the Corporation Nursery Schools was agreed to.

The proposal of allowing 10% discount to general public at Book Fairs, etc., on the purchase of Council's publications except textbooks and journals was approved.

Rationalisation of the scale of pay of the post of Laboratory Assistants in Regional College of Education, Mysore, from Rs. 260-430 to Rs. 290-500 was approved.

Rationalisation of the scale of pay of two posts of Laboratory Assistants in the Department of Educational Psychology and Foundations of Education from Rs. 260-430 to Rs. 290-500 was also agreed to.

The Committee approved the creation of two posts of Section Officers in the pay scale of Rs. 650-1200, keeping in abeyance two posts of Superintendents, to man the Planning, Coordination and Evaluation Section as well as the Programme Section in the Council Secretariat.

The Committee agreed to the creation of two additional posts of Packer (Junior Grade) in the pay scale of Rs. 196-3-220-EB-232 for the National Talent Search Unit keeping in view the educational and time bound nature of the work.

The Finance Committee endorsed the action taken by the Council to invest short term deposits for a period of 15 to 75 days with the State Bank of India with effect from 1971.

The regularisation of fixation of pay of Govt. employees on their permanent transfer to NCERT prior to 8.4.1976 in public interest was agreed to by the Finance Committee.

The Finance Committee agreed to the following rates of payment to teachers of language textbooks that are anthologies/compilations:

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| 1. For book for Classes VI-VIII | Rs. 15/- per
300 words |
| 2. For book for Classes IX & X | Rs. 20/- per
300 words |
| 3. For book for Classes XI & XII | Rs. 25/- per
300 words |

The Finance Committee decided that daily allowance at State Government rates may be allowed to the teachers who have to stay at the Centre for Continuing Education during the conduct of the contact programmes. The Committee felt that there need not be any change from the existing norms for the payment of travelling allowance.

The Finance Committee agreed, as a special case, meeting of 75 per cent of the expenditure incurred during the year 1978-79 in respect of the Centres for Continuing Education in Nagaland, out of the Council's funds instead of the normal pattern of meeting 50% of expenditure.

The Finance Committee agreed to the creation of an additional post of Binder-cutter for the Publication Department till March, 1981.

The Establishment Committee

While considering the question of the crossing of efficiency bar in respect of Lecturers at Rs. 1300/- the Committee recommended that the U.G.C. guidelines may be suitably adapted to provide for the interpretation of the academic work done in the Council as equivalent to the research work. In this context the criteria already adopted by the Council in the matter of experience at the time of screening of applications for interview may be followed.

The Establishment Committee approved the amendment to the recruitment rules for the post of Helper, Sr. Grade, to the effect that the post of Helper in the Sr. Grade will be filled by promotion from the Helper in the Jr. Grade. The Committee, however, advised that the job description for the post of Sr. Grade Helper should include jobs that are to be done by the Jr. Grade Helper.

The Committee agreed to the proposal of appointing persons working on daily wages as LDC's as regular LDCs against un-reserved vacancies as and when such vacancies arise within the framework of the normal rules.

The Committee approved the proposed procedures for filling up of vacancies in the absence of select list as well as short-term vacancies.

The Committee approved the following Recruitment Rules for the post of Section Officer :

"By promotion through Selection on the basis of merit from amongst the Superintendents/Stewards having not less than three years regular service as Superintendent/Steward in the Council."

The Committee approved the proposed amendment of Recruitment Rule for the post of Peons.

The Committee recommended that two posts of Library Clerks at present existing in the NIE Library may be converted as Semi-professional Assistants with the pay scale of Rs. 330-560 so that the Library does not suffer from lack of technical hands.

The Committee approved the amendment of the Recruitment Rules for the post of Junior Foreman/Junior Mechanical Assistant as proposed by the Council.

The Committee accepted the amendment to the Recruitment Rules for the post of Junior Accountant and Sr. Accountant as proposed by the Council.

On consideration of the Report of finalization of Recruitment Rules for the post of Special Assistant Grade I designated as Assistant Programme Coordinator, the

Establishment Committee noted the eligibility condition for the post of Assistant Programme Coordinator in the pay scale of Rs. 650-1200.

The Establishment Committee approved the proposal to modify the Recruitment Rule for the post of Senior Packer to read as :

"By promotion on the basis of seniority-cum-fitness from amongst the Packers in the Junior scale."

The Committee approved the proposal to amend the Recruitment Rule for the post of Tractor Driver-cum-Workshop Attendant.

While considering the proposal for amendment to Recruitment Rule for the post of Assistant, the Establishment Committee approved the proposal that there was a need for prescribing a training course as a condition for allowing to appear in the examination.



राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL
RESEARCH AND TRAINING