

Elementary Teacher Education Curriculum

Guidelines and Syllabi

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Foreword

It is well known that the National Council of Educational Research and Training (NCERT) is engaged in the task of improving school education. Since independence, all Committees and Commissions have laid stress on the better preparation of teachers through the existing pre-service courses being offered across the country. While teacher preparation area is one of the major concerns of the NCERT's Department of Teacher Education, it, on its own, cannot change the entire scenario. The variety of teacher education that exists in the country today is far from satisfactory.

To make a dent in the pre-service programme, the Department of Teacher Education has prepared guidelines and syllabus for both elementary and secondary teacher education. This, to my knowledge, is a continuation of the work which the National Council for Teacher Education (NCTE) had taken upon itself as far back as 1978. The document then prepared was called '*Teacher Education Curriculum—A Framework*' which met with partial success, because its acceptance varied from zero to one hundred per cent.

The Department of Teacher Education has also been the Secretariat of the NCTE. Therefore, the efforts of the Department sometimes came to be identified with the work of the NCTE. This document deals with the guidelines and syllabus for elementary teacher education. These guidelines are suggestive and not prescriptive in nature.

Needless to say that I appreciate the association of Prof. A.K.Sharma and Prof. R.P. Singh with this work. The Project Co-ordinator, the convenors from the Department, Regional colleges of Education and other contributing participants in this project also deserve commendation for their industry and concern.

K. GOPALAN
Director

National Council of Educational
Research and Training

New Delhi

Dated 26 November, 1990

Preface

SINCE independence significant developments have taken place in the educational system of our country with special reference to school education. To improve the quality of school education, it is imperative to improve the quality of teacher education. To achieve this, the teacher education curriculum has to be suitably reviewed. In this context, 'Teacher Education Curriculum—A Framework' was developed by the National Council for Teacher Education in 1978 and was implemented in various teacher training institutions with varied success.

Recent developments in our educational system suggest overhauling of teacher education. In this context, the Department of Teacher Education, (NCERT) has undertaken a project entitled 'Development of Guidelines and Syllabus based on the Teacher Education Curriculum Framework for Elementary and Secondary Teacher Education'. In April 1989, a draft document was developed concerning the guidelines/ syllabi at the elementary and secondary teacher education level. It was sent to various teacher educators, content experts for their valuable comments/ suggestions. Alterations/suggestions/modifications have been incorporated in the light of the feedback received.

The above document has now been divided into two volumes; viz; Volume-I (Elementary) and Volume-II (Secondary). The present volume dealing with elementary teacher education curriculum has been further reviewed and revised by various teacher educators and specialists in elementary teacher education. It may however be mentioned that these guidelines/syllabi of elementary teacher education curriculum are suggestive in nature and not at all prescriptive. These may not necessarily be applicable in all situations.

This project was initiated under the guidance of Prof. A.K. Sharma, former Head of Teacher Education Department and now Joint Director. My special gratitude is due to several contributing participants and teacher educators in India especially Prof. D. Joshi, Dr. A.M. Siddiqui and

Prof. R.S. Khan of Jamia Millia, Prof. Sunitee Dutt, Shri R. Prabhakar Singh, Miss Kamal Vasudeva, Dr. J.N. Kaushik, Dr. B.S. Dangaur, Shri S.K. Malhotra, Shri M.G. Bhagat, Dr. Q.L. Bagga and Dr. M.A. Siddiqui of DIETs, Delhi, my esteemed colleagues from Regional Colleges of Education and other contributors. I appreciate efforts of Prof. R.M. Kalra (Project Coordinator), Convenors, NCERT faculty members from other Departments and Regional Colleges of Education for their team work in the completion of this project. Contribution of administrative staff and smt. Suman Srivastava, Research Associate deserves special mention.

Suggestions and comments, if any concerning these guidelines/syllabi at the elementary level may be sent to Prof. R.M. Kalra, Project Coordinator, Department of Teacher Education, NCERT.

New Delhi
Dated March 31, 1991

Prof. R.P. SINGH
Head
Department of Teacher Education,
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**GUIDELINES AND SYLLABI
OF
ELEMENTARY TEACHER EDUCATION
CURRICULUM**

Consultants

A.K. SHARMA

R.P. SINGH

Project Co-ordinator

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Convenors

A. *Foundation Courses*

- | | | |
|----|-----------------------------|----------------|
| 1. | Education in Emerging India | — M.R. Chilana |
| 2. | Educational Psychology | — G.L. Arora |

B. *Stage Relevant Specialization*

- | | | |
|----|--|---------------------|
| 3. | Teacher Functions at the Elementary Stage | — Ajit Singh |
| 4. | Language Teaching— | |
| | (a) Teaching of Mother Tongue | — Smt. R.K. Chopra |
| | (b) Teaching of English Language | — Smt. T.C. Daswani |
| 5. | Teaching of Mathematics | — K.M. Gupta |
| 6. | Teaching of Environmental Studies (Science) | — R.M. Kalra |
| 7. | Teaching of Environmental Studies (Social Studies) | — U.S. Madhyastha |

- | | | |
|-----|---|--------------------|
| 8. | Teaching of Health and Physical Education | — K.M. Gupta |
| 9. | Teaching of Art Education | — Smt. Janak Verma |
| 10. | Teaching of Work Experience | — D.D. Yadav |

C. *Additional Specialization*

- | | | |
|-----|--------------------------------|----------------|
| 11. | Non-Formal Education | — B.R. Goyal |
| 12. | Multigrade Teaching | — B.R. Goyal |
| 13. | Girl's Education | — B.R. Goyal |
| 14. | Special Education for Disabled | — N.K. Jangira |

D. *Practicum cum Field Work*

- | | | |
|-----|-----------------------------------|----------------------------------|
| 15. | School Experience Programme (SEP) | — Smt. R.K. Chopra J.C. Goyal |
|-----|-----------------------------------|----------------------------------|

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Introduction

WE all know that no educational reform can be successful unless the quality of teacher is improved, but in turn the quality of teacher depends to a large extent on the quality of teacher education. In reality the teacher education is the very *sine qua non* of all educational improvements. The status and quality of teacher education of our country especially at the elementary level is far from satisfactory. May be the existing system failed to provide meaningful experiences to the prospective teachers, especially at the elementary level. Elementary teacher education should train prospective teachers to take decision regarding application of basic educational principles to the existing school situations without overlooking the characteristics of the learners. Thus, the professional education of elementary teachers must relate to pedagogy and the way instructional materials can be put to a judicious use. This envisages a teacher training which may suggest a way of working with young learners, to help them seek and find answers to problems of their immediate concerns. Thus, the emphasis in the teacher education programme at the elementary level has to be on helping prospective teachers to acquire

necessary insights and skills to enable them become effective teachers of young learners.

The above contentions have many ramifications and implications for teacher education curriculum. It is gratifying to note that some significant developments have already taken place in this field. The National Policy on Education (1986) suggested an over-hauling of Teacher Education at all levels. A National Curriculum Framework for Elementary/ Secondary School Stages was developed by the NCERT keeping in view the major thrusts of National Policy on Education (NPE). Setting up of District Institutes of Education and Training (DIETs) at the elementary level and upgrading some colleges of education as Institutes of Advanced Studies in Education (IASEs) and strengthening of Colleges of Teacher Education (CTEs) are other significant steps taken in this direction. These institutions are expected to contribute their mite in improving the quality of teacher education. It is now felt that to provide effective training experiences to the teacher trainees, different components of teacher education curriculum, especially at the elementary level, need to be reviewed and revised.

Elementary Stage (Primary and Upper Primary)

Elementary education generally extends over standards I to VIII, ordinarily covering the age-group 6 to 14 years. It comprises two distinct stages, referred to as the primary stage (standards I to V) and the upper primary stage (standards VI to VIII). Generally, the class teacher system, which requires a teacher to teach almost all the academic subjects, is followed in the primary stage while special inter-

ests and proficiency of the teacher are taken in view for teaching at the upper primary stage. Each teacher must also be able to impart health and physical education, art education and work experience with adequate knowledge. He should be able to handle handicapped children and be acquainted with at least one area like adult education, non-formal education, women education or library service, etc. The curriculum components have been designed keeping these requirements in mind.

| <i>Curriculum Components</i> | | <i>Weightage in terms of time</i> |
|------------------------------|--|-----------------------------------|
| A. | Foundation Courses | 20% |
| i. | Education in Emerging India (Philosophical and socio-cultural perspective) | 10% |
| ii. | Elementary School Students Learning Processes, Adjustment (Educational Psychology) | 10% |
| B. | Stage Relevant Specialization | 30% |
| iii. | Elementary Education and Teacher Functions | 5% |
| iv. | Language Teaching (Mother Tongue and English) | 5% |
| v. | Mathematics Teaching | 5% |
| vi. | Environmental Studies Teaching (as related to stds. I to V) | 5% |
| vii. | Health and Physical Education | 5% |
| viii. | Arts Education and | |
| ix. | Work Experience | 5% |
| C. | Additional Specialization | 10% |
| x. | Science Teaching and Social Studies Teaching/Pre-School Education | 5% |
| xi. | Elective-one : (Adult Education/Non-Formal Education/Social Education/Tribal Education/Multiple Class Teaching/Population Education/Special Education, Educational Technology, etc.) | 5% |
| D. | Practicum | 40% |
| xii. | Practical work | 20% |
| xiii. | Internship in Teaching (in Primary and Upper Primary/Pre-school systems) | 20% |

The above course offerings have been divided spelt out in the revised NCTE Draft Curriculum into the following four major components as (1988).

- (a) Foundation Courses
- (b) Stage Relevant Specialization
- (c) Additional Specialization
- (d) Practicum/Field Work

Foundation Courses

The Foundation Courses component of the teacher education curriculum may provide the prospective teacher necessary theoretical insights into the understanding of aims and objectives of education in the context of national development with reference to socio-cultural, political and economic imperatives. Another objective is that the student teacher may acquire knowledge and develop understanding of the process of human development and learning.

Stage Relevant Specialization

This component may include historical background and scope of education at the stage concerned e.g., elementary or secondary level and functions of the teacher with reference to curriculum planning, instructional strategies and skills, evaluation, management, guidance and counselling and co-curricular activities etc.

Additional Specializations

The subject areas like art education, adult education, non-formal education, special education and population education etc., have been included in the teacher education curriculum to provide professional education to the teacher trainee in an educational area of his interest and to equip him with higher knowledge, understanding and skills in that area. A few areas have been discussed in this document.

Practicum/Field Experiences

This component deals with the central objective

of teacher education viz., development of professional competencies in areas like evaluation, managing classroom learning, organizing co-curricular activities, guiding students and other similar activities which are 'beyond' the classroom.

Guidelines and Syllabi

The guidelines and syllabi included in this document for the following curricular subjects at the elementary level have been developed through a series of workshops held in 1989 and 1990.

A. Foundation Courses

1. Education in Emerging India
2. Educational Psychology

B. Stage Relevant Specialization

3. Teacher Functions
4. Teaching of Mother Tongue
5. Teaching of English
6. Teaching of Mathematics
7. Teaching of Environmental Studies (Science)
8. Teaching of Environmental Studies (Social Studies)
9. Teaching of Health and Physical Education
10. Teaching of Art Education
11. Teaching of Work Experience

C. Additional Specialization

12. Non-Formal Education
13. Multigrade Teaching
14. Girls Education
15. Education for Disabled

D. Practicum-cum-Field Work

The detailed guidelines and syllabi along with

suggested weightages in terms of time are given in the chapters that follow. It is also suggested that while evaluating the students' performance, 40 per cent weightage may be given to internal assessment.

Thus, the guidelines and syllabi given in the present document are based on the National Curriculum for Teacher Education for Elementary and Secondary Levels. These guidelines/syllabus outlines are suggestive and not prescriptive in nature. These may not necessarily be applicable in all situations due to constraints of time and resource facil-

ities. It is also suggested that teacher educators may make use of appropriate modalities for transacting different units of the suggested syllabi. Furthermore, the Council has plans to develop instructional materials based on these suggested guidelines/syllabi. Therefore, we have not incorporated suggested readings in this document. Practicum field work component has been discussed in the school experience component of this document. Practical work including working with community and social service has not been discussed due to different and varied needs and requirements of the community.

Foundation Courses

Education in Emerging India

An education system has to be geared to the changing demands of the society. No system of education, however comprehensive in content and form, can meet these changing demands unless the teacher, who is the driving force behind it, is fully equipped with academic and professional competencies.

We have therefore to make efforts to re-orient the existing system of teacher education from time to time. This implies that the entire body of principles and practices pertaining to teacher education—its structure, curriculum organization and transaction and evaluation, should undergo appropriate revision and reform. Accordingly, a new National Curriculum Framework for Teacher Education has been designed by the NCTE, building on the strengths of the earlier curriculum framework and also accommodating the new and emerging national concerns and imperatives.

An important component of teacher education curriculum is what is normally referred to as the 'Foundations Component'. The 'Foundations Component' seeks to provide the prospective teacher with relevant functional understanding of educational theory in the present context. In the earlier Framework of 1978, this was organized around the course

'Teacher and Education in the Emerging Indian Society'. In the revised Curriculum Framework of 1989, the entire Foundations Component has been subjected to a critical scrutiny keeping in view the new concerns and imperatives that have emerged during the past one decade, and the experiences gained from the implementation of the earlier curriculum framework with particular reference to this component of the Foundation Courses. While retaining the original spirit and philosophy, the course under the new title *Education in Emerging India* seeks to take a fresh look both at its form and content in the light of the emergence of new concerns in national education.

Rationale of the Course

The course on Education in Emerging India in the new curriculum framework replaces the earlier course 'Teacher and Education in the Emerging Indian Society'. This marked a major effort to do away with discipline-oriented educational theory courses like philosophical and sociological foundations of education. Thus it is an attempt to organize relevant educational understanding around interdisciplinary themes.

The course 'Education in Emerging India' seeks to develop understanding of Indian education—Its concepts, processes, practices and principles—in an interdisciplinary perspective, taking into account their philosophical, sociological, historical, political and cultural dimensions. Its main aim is to provide necessary insights into the meaning and aims of education and its role in national development in the light of emerging socio-cultural, political and economic concerns and imperatives. What is aimed at is developing a broad functional acquaintance with educational goals, processes and issues influencing the day-to-day world of the teacher.

The course is designed on the premise that the role of the modern teacher is multidimensional covering, in addition to the immediate concerns of classroom teaching, such supplementary tasks as implementation of compensatory education programmes (e.g., *NFE, *AE, *CAPE projects etc.), participation in parallel educational services, working with the community and promotion of environmental awareness, scientific outlook, secularism and understanding of our cultural heritage.

The course, as the title suggests, focusses on themes and issues which are of concern to Indian education. These themes and issues are derived from the analysis of the existing socio-political reality and critical appraisal of the state of education in the nation and the role education has to play in future, as visualized in the different national documents on education.

The course embodies all current concerns in Indian education that have found articulate expression in policy documents and reports of Commit-

tees and commissions such as the national system of education, education for equality, national curricular framework, child-centred approach to education and value education. The course is divided into three sections, namely:

- (a) Emerging Indian Society
- (b) Education: Concept and Development, and
- (c) Enhancing Educational Opportunities.

The course is not an aggregate of topics and themes. What lends unity and continuity to the themes is their interrelatedness between education and society which runs through the treatment of the topics.

Objectives

The broad objectives of this course aim at enabling the prospective teachers to develop necessary understanding and insight into:

- the nature of the Indian society as it has evolved from the past, as it is today and as it is likely to develop in the future.
- the integral relationship between education and society with specific reference to the contemporary socio-cultural, political and economic issues
- the multi-dimensional nature of a teacher's role in the changing Indian society.

Guidelines for Selecting and Organising Course Content

Structurally, the course comprises three compo-

NFE : Non Formal Education

AE : Adult Education

CAPE : Comprehensive Access to Primary Education

nents: education, society and teacher. The content for the course would accordingly deal with knowledge and understanding pertaining to these components and, more importantly, their inter-relationships.

The course content can be derived from the following sources:

- Further analysis of the objectives of the course and the overall objectives of the teacher preparation programme in terms of the specific functions of the teacher and knowledge and understanding needed to perform those functions effectively.
- Current and emerging socio-politico-economic concerns and the needed responses of the educational system to deal with them.
- Thrust area as indicated in the educational policies is to relate education and development.

Apart from the above sources, some essential content is to be drawn also from the related disciplines (philosophy, sociology, economics etc) both to provide basic understanding of educational concepts and processes and to impart unity to the learning experiences provided under this rubric.

While organizing the content, the following guidelines may be kept in view:

- The content, taken as a whole, should exhibit unity and inter-relatedness rather than appearing as an assemblage of topics.
- Inter-relationship between education and society will be the running theme throughout, acting as the unifying thread for all the different content areas.
- Each broad theme (a problem, an issue, an academic topic) should provide for an under-

standing of basic concepts, principles and explanations necessary for understanding that theme.

- The different educational issues and problems are to be presented by highlighting their inherent inter-disciplinary nature and teacher's role in this regard.

Curriculum Transaction

The course is essentially inter-disciplinary in nature drawing from the disciplines of philosophy, history, political science and sociology. The major objective is to enable students to comprehend the integral relationship between education and society with an emphasis on the role of education in promoting values based on our heritage, national goals and universal perceptions. The course is expected to help develop necessary changes in perceptions and allow insights into the issues and problems confronting the emerging Indian society and to inculcate among the teachers the capability to use education as a potential tool to deal with such issues. This special feature of the course makes it necessary that a flexible mode of curriculum transaction is adopted emphasizing participatory and interactive learning approaches and calling for greater student involvement and initiative. The course also provides a good opportunity to foster 'learning to learn' skills emphasizing training in the use of different learning resources such as library, laboratory, educational media and materials.

In situations governed by accent on 'learning to learn' and participatory learning, the role of the teacher educators would change with regard to the structuring of learning situations, teaching techniques, strategies and attitudes. The changes include: more importance to student inquiry and problem-solving, a cooperative and equal working relation-

ship, mastery of the sources of knowledge and methods of inquiry than of knowledge itself, acceptance of new sources of learning both in media and community.

The actual strategies and approaches emphasizing such participatory learning are numerous. However, by way of illustration, mention could be made of: inquiry and problem solving approach, group discussion, seminar, project work, individual work assignment, study of self-learning materials, brainstorming, team teaching and many such techniques.

Practical Work

Although 'Education in Emerging India' is a foundation course with its major objective as the development of theoretical understanding of educational issues, efforts may however be made to present the students with interface between the theory and the practice. It is only when a student is able to relate these two that he can be said to have developed a comprehensive understanding of the issues under consideration. Accordingly, the course should provide for ample practical experience to the students to enable them to acquire a realistic understanding of educational issues.

Activities related to practical work may include surveys, home assignments, library study, observations, interviews and projects on 'working with the community'.

It is possible to identify such practical activities for most of the units/sub-units in the course. A few examples may be given here. Understanding of the contemporary Indian society would lead to such practical activities as survey of socio-economic conditions and educational needs of the people and also a study of the educational problems of the disad-

vantaged groups. Practical work related to the understanding of the process of social change may include projects on the status and acceptability of change in the society, awakening of the political and social consciousness among different sections of the population. A variety of practical activities mainly on 'working with the community' may be organized under the section 'Enhancing Educational Opportunities'. These relate to the role of the teacher in programmes like universalization of elementary education, promotion of the values of secularism, peace, equality, social cohesion and national unity, population increase and quality of life, conservation of environment and understanding of our cultural heritage. The activities may take the form of participation in programmes of universalization of elementary education, education for the disadvantaged, activities of NSS, social service activities like tree plantation, improvement of village sanitation and cleanliness and campaigns for the promotion of awareness on social concerns like population and environment. These are suggestive activities. Choice of these suggested activities depends upon the time available for this course.

Evaluation

The course seeks to develop competencies in both theoretical learning and practical work. Accordingly, appropriate evaluation tools are to be designed to provide for the evaluation of a comprehensive range of objectives covering knowledge, understanding, application and attitudinal changes. Evaluation should also be continuous taking into account students' performance in written tests, project work, participation in activities, initiative, enthusiasm and motivation to carry out the activities. Final evaluation may be in the form of an examination in theory and practical work at the end of the course.

Textbooks and Instructional Material

'Education in Emerging India' represents an effort to bring about an understanding of several disciplines in order to highlight the inter-disciplinary nature of educational theory. Mapping the contours of this knowledge field, therefore, becomes a task of great importance. This task can be performed at two levels: developing the course outlines and preparing the textbooks and other instructional materials. The latter is of particular significance for it is the textbook that, to a large extent, determines the scope and quality of curriculum transaction and sets standards and norms. While developing textbooks and other instructional materials in this area, the following points may be kept in view:

- Although the stress is on interdisciplinary understanding, basic concepts necessary for understanding educational issues should be introduced systematically using suitable illustrations and examples.
- Factual information, wherever necessary, be presented with supportive data, illustrations, pictures and diagrams.
- Each topic should be analysed into its various dimensions in inter-disciplinary perspective and the role of teacher in dealing with the issue/problem should also be made explicit.
- Recommendations of various Committees and Commissions on different issues and problems should be integrated suitably with the respective contents, avoiding independent and exclusive treatment of such recommendations.
- Treatment of content should be such that it generates a variety of different levels of activities to be undertaken by students within and outside the classroom.
- A textbook can also be designed and developed in the form of package of self-instructional modules.

SYLLABUS**SECTION I****EMERGING INDIAN SOCIETY**

UNIT 1 : Our Heritage 30 Hrs.

Our common cultural heritage - Its compositeness, unity in diversity, richness and continuity. Illustration: Indian achievements in art, science and literature.

UNIT 2 : Contemporary Scene and Emerging Future 45 Hrs.

- 2.1 Indian society : its broad social, economic and political characteristics.
- 2.2 Constitutional obligations of the citizen in a democratic, socialistic and secular India.
- 2.3 Fundamental rights and duties.
- 2.4 Existing socio-cultural and environmental concerns: poverty, inequality, social unrest, population growth and conservation of environment.

SECTION II

EDUCATION : CONCEPT AND DEVELOPMENT 75 Hrs.

UNIT 3 : Education 60 Hrs.

- 3.1 *Meaning* : Education for inducting the children into their socio-cultural setting : education as a life long process.
- 3.2 *Aims* : Education for reconstruction of experiences, education for adjustment with social, natural and work environment; education for inducting the child into basic disciplines.
- 3.3 *Forms* : Informal, formal and non-formal, non-formalizing of formal education.
- 3.4 *Agencies*: Informal—family and community, state, formal-school, non-formal - NFE & AE centres, Open School.

UNIT 4 : Our Education - Historical Perspective **30 Hrs.**

Elementary education in pre-independence and post independence periods with reference to:

- (a) Basic education
- (b) Some outstanding recommendations of the Kothari Commission related to elementary education.
- (c) National Policy on Education (NPE) 1986.

SECTION III

ENHANCING EDUCATIONAL OPPORTUNITIES **75 Hrs.**

UNIT 5 : Education for All **54 Hrs.**

- 5.1 Meaning of Education for All.
- 5.2 Primary education as a basic human right and constitutional provisions.
- 5.3 Quantitative and qualitative aspects of universalisation of elementary education (UEE).
- 5.4 Understanding the strategies : school mapping, micro-planning, curriculum decentralization.
- 5.5 Operation Blackboard (OB) for ensuring minimum educational facilities.
- 5.6 Measures to achieve cent per cent retention - practical work.

UNIT VI : Equalizing educational opportunity **18 Hrs.**

- 6.1 Concept of equalization of educational opportunity, concept and provisions, protective discrimination.
- 6.2 Compensatory education - meaning, programmes and clientele.
- 6.3 Special needs and Education for All.
- 6.4 Factors resulting in special needs. (within child, in home and school environment).
- 6.5 Educational provision - special and general schools.

Educational Psychology

EDUCATION has long been regarded as an organised endeavour to develop desirable behaviours in pupils. While the question that what are desirable behaviours has been one of the main concerns of philosophers, the question of how, at what stage and in which manner these behaviours could be developed, has been the concern of educational psychologists.

Educational psychology is one of the major areas of study in teacher education programme. It seeks to help a prospective teacher to develop insight into the behaviours of the learner and also to determine or influence the same. However, the achievement of this objective is contingent upon the selection of such course contents and activities as will be of use in the proper preparation of the teacher. A course for the psychology of the teaching-learning process and child development is essential and should centre around such objectives which would make a teacher :

- (i) understand how educational psychology can help in studying a child's behaviour through various techniques.
- (ii) understand the process of growth and development of various aspects of child's behaviour such as physical, cognitive, lan-

guage, emotional, moral and social behaviour during childhood and pre-adolescence period.

- (iii) understand the developmental needs and problems of childhood and pre-adolescence periods.
- (iv) understand the nature and process of learning and its implications for arranging the teaching learning processes in the classroom.
- (v) understand the nature and extent of individual differences among children, and various measures that can be adopted by the teacher in the school situation.
- (vi) understand the principles of behaviour modification and its application for the attitudinal change.
- (vii) understand the nature and type of mental abilities and the various strategies for nurturing creativity.
- (viii) understand the factors affecting learner's adjustment and the ways in which guidance activities can be organised to solve their personal and educational problems.

It may be kept in mind that overall objective of

this course is not simply to develop theoretical understanding but also to enable the pupil teachers* to arrange appropriate teaching-learning environment in the classroom.

Educational psychology, like any other area of knowledge, is a growing science. During the past few decades a vast amount of knowledge and technology has been developed about what the teaching-learning process is and how it can be employed for proper human development. Each area of human development is important in its own right. But there are certain aspects of these developments, the knowledge of which may have a special relevance for the prospective teacher to acquire skills for his job. Thus in selecting the content, the criteria of relative usefulness and relevance to the course objectives as well as teacher-functions should be kept in view. The amount of content should be such as can be managed within the available time during the teacher education programme. Only that should be included which is important for understanding the child, imparting instruction, managing children's behaviour and helping them in their personal social adjustment.

It is essential for a teacher to know and understand the process involved in human growth and development especially during the formative years. The primary aim of education is to develop the learner into a complete person. This implies that not only cognitive domain but affective and psychomotor domains of development are equally important. It is in this context that the study of edu-

cational psychology could help a teacher to adopt teaching-learning strategies to make the learning process need-based and learner-centred.

Learning is pivotal to all aspects of human development, particularly during childhood and pre-adolescence. Hence, the student teacher has to have an understanding of the nature and process of learning, factors facilitating learning and transfer of learning. Thus while developing the course of educational psychology, learning has been assigned an important place.

One of the important focal points of the teaching-learning process should be to nurture creativity in every learner. It is indeed unfortunate that in our educational system this is ignored. The teacher, therefore, should be conversant about its nature and various strategies to nurture it, especially at the elementary level.

Individuals differ in respect of their abilities, personality traits, socio-cultural status etc. As this affects learning and development of pupils, a suitable provision has to be made to understand and educate these children.

Educational psychology being a science has enough scope for practical work in it. Participation in practical activities will help in clarifying the concepts explained by the teacher educator. For example, the trainees should be provided with the experience of observing child behaviour, preparing case studies and helping children in understanding and solving their personal social problems.

*Also student teachers as used elsewhere in this publication.

SYLLABUS

| | |
|---|----------------|
| FIRST YEAR | 75 Hrs. |
| <i>Unit 1 Nature, Role and Methods of Psychology in Education</i> | 15 Hrs. |
| 1.1 Meaning and nature of educational psychology. — Educational Psychology as an applied field. — Educational Psychology as a discipline. | |
| 1.2.1 Scope of educational psychology. | |
| 1.2.2 Relevance of educational psychology for the elementary school teacher in understanding the situation. | |
| 1.2. Approaches to understand learner's behaviour at childhood and pre-adolescent stages: observation, interview, experiment methods and case study. | |
| <i>Unit 2 Growth and Development of the Learner</i> | 30 Hrs. |
| 2.1 Concept of growth and development. | |
| 2.2 Principles of development. | |
| 2.3 Stages of development; developmental tasks of childhood and pre-adolescence stages. | |
| 2.4 Characteristics of physical, emotional, social and language development during childhood and pre-adolescence stages. | |
| 2.5 Cognitive development: Piaget's stages of intellectual development with special reference to concrete operational and formal operational stages. | |
| 2.6 Aesthetic development - Löwenfeld's stages of artistic expression. | |
| 2.7 Common play activities of children and their role in growth and development: | |
| <i>Unit 3 Personality Development and Adjustment</i> | 15 Hrs. |
| 3.1 Meaning and definition of personality | |
| 3.2 Personality development during childhood and pre-adolescent stages, with special reference to habit formation and trait formation. | |
| 3.3 Development of self-concept, interests, attitude and values. | |
| 3.4 Concept of mental health; adjustment at home and school. | |
| <i>Unit 4 Individual Differences Among Learners</i> | 15 Hrs. |
| 4.1 Meaning and nature of intra-individual and inter-individual differences among learners; individual differences in ability, aptitude and achievement and their educational implications. | |

- 4.2 Concept of intelligence and mental abilities; mental ability tests and their uses.
- 4.3 Meaning and nature of creativity; nurturing creative talent.

SECOND YEAR 75 Hrs.

Unit 5 Teaching-Learning Process 25 Hrs.

- 5.1 Concept and nature of learning.
- 5.2 Approaches to the study of learning; trial error training by conditioning and insight.
- 5.3 Concept of mastery learning-principles, systems.
- 5.4 Determinants of learning-maturation, motivation and readiness.
- 5.5 Retention and forgetting.
- 5.6 Teaching of concept learning.
- 5.7 Transfer of training.

Unit 6 Learners with Special Needs 25 Hrs.

Definition, identification, characteristics and special educational provisions including integrated education in respect of the following categories of children.

- 6.1 Talented children.
- 6.2 Slow learners and under-achievers.
- 6.3 Children with learning disabilities.
- 6.4 Visually impaired children.
- 6.5 Hearing impaired children.
- 6.6 Orthopaedically impaired children.

Unit 7 Practical Work 25 Hrs.

Experiments and psychological tests related to topics in units I - VI may be demonstrated. Each trainee is expected to administer at least two tests and conduct two experiments. A suggestive list of experiments and tests to be performed is as follows:

- A. Experiments (any two)
 - 7.1 Learning and retention of various kinds of semantic materials, nonsense syllables, meaningful words - sentences.

- 7.2. Transfer of training experiment—Mirror drawing.
- 7.3. Study of conservation using Piagetian type tasks.
- 7.4. Study of concept formation among children by using categorisation tasks (Bruner & Hilda Taba).
- 7.5. Study of nutritional status of a child.
- 7.6. Study of sociometric status of a child.

B Psychological Tests/Observations/Case Study

- 7.7 Observing, recording and reporting about some behavioural aspects of a learner through check list.
- 7.8 Conducting case study of a child.
- 7.9 Preparing cumulative record cards and reports of five children of 10+ to 11+.
- 7.10 Development of test items of various types in school subjects.
- 7.11. Identifying the learning needs of sub-groups of children and organizing remedial teaching.

Stage Relevant Specialization

Teacher Functions at the Elementary Stage

As a result of socio-cultural changes taking place in the society and corresponding changes in the concept of education, the role of the teacher no longer remains as simple and mainly directional as it used to be. The teacher today can be better described as a democrat leader in the class, a guide and a counsellor for personal-social problems of the child and a facilitator of knowledge for the pupils. In addition, in order to discharge his functions more effectively, he has to have a wider contact and interaction with parents and other members of the community, so that he can better understand the problems of children, aspirations of parents and expectations of the society. So his functions as teacher no longer remain confined to the bounds of the school.

Not only that, within the school and curriculum as well, his role has undergone a transformation and expansion. Today we do not look upon teacher as a transmitter of knowledge and understanding. He is rather seen as an individual to impart certain skills and develop other capabilities in pupils which enable them to think for themselves, to decide for themselves and to act for themselves. In order to effectively discharge such varied and complex functions, teacher's own perspective, skills and abilities must

be fully developed. This is all the more necessary in the case of an elementary school teacher because this stage is the starting point for children to take direction to become what they are capable of becoming.

Thus the task of the teacher at the elementary stage has to be broad-based. He is to be adequately equipped with various roles expected of him and that relate to his curricular as well as co-curricular functions. And the only time and place where teacher can develop in himself such capabilities and attitudes is his pre-service education. It is to realize this broad objective that this course titled 'Teacher Functions at the Elementary Stage' has been introduced in the curriculum of elementary teacher education after restructuring and reformulating it. No doubt some aspects and topics included in this paper were generally in the earlier curricula as well, but there are many significant topics/aspects which did not find place in the earlier curricula, such as educational technology, the core elements in curriculum, guiding the children, action research. So the overall objective of this paper is to enable a pupil teacher to develop himself as an effective teacher who knows his job well, understands his pupils and who

is, above all, a good human being.

Guidelines

The teacher education programme at the elementary level is to be of two years' duration. The objectives and course content of the said course have been delineated taking into consideration this duration. The course content consists of seven units—three units are to be covered during the first year and four units are for the second year. This course is to be given 5 per cent weightage in terms of time. Thus the total time to be devoted to this course is 60 hours every year. The time allocation for the different units is mentioned below :

| <i>S.No. of the Unit</i> | <i>Year One</i> |
|--------------------------|-----------------|
| Unit I | 25 Hours |
| Unit II | 15 Hours |
| Unit III | 20 Hours |
| Total | 60 Hours |
| <i>S.No. of the Unit</i> | <i>Year Two</i> |
| Unit IV | 20 Hours |
| Unit V | 15 Hours |
| Unit VI | 15 Hours |
| Unit VII | 10 Hours |
| Total | 60 Hours |
| Grand Total | = 120 Hours |

The time frame for different units is only suggestive. Each teacher educator may make changes in the time frame in the light of background of his/her student-teachers.

The transaction of different units appropriately is very important for realising the objectives of the course. The nature of content included under different units demands from the teacher educators varying modes of transaction. The teacher educators may, therefore, use the transactional modality considered appropriate by them for a particular unit.

Objectives

The major objectives of the course on teacher functions at the elementary stage are as follows:

- developing an understanding of the objectives of elementary education
- developing comprehension of the various components of the National Curriculum Framework in relation to elementary education
- Understanding the principles of curriculum planning
- Understanding the concept of minimum levels of learning
- Acquiring proficiency in the use of teaching skills relevant to elementary education
- Gaining proficiency in the use of a few teaching strategies including creative teaching.
- developing an understanding of the concept of educational evaluation and different types of evaluation
- perceiving his role in providing personal-social guidance to pupils
- understanding the role of educational technology in improving, facilitating pupils' learning.
- developing skills in the planning and management of various activities in the school.
- developing competency in conducting action research projects

SYLLABUS

FIRST YEAR

- Unit 1 Curriculum - A Conceptual Framework* 25 Hrs.
- 1.1 Objectives of elementary education — primary and upper primary
 - 1.2 Concept of curriculum, meaning, approaches to curriculum transaction.
 - 1.3 Principles of curriculum planning
 - 1.4 Minimum levels of learning.
 - 1.5 Types of curriculum: activity based, experience centred and subject centred
 - 1.6 National Curriculum Framework in relation to elementary education.
 - 1.7 Core-curriculum elements.
 - 1.8 Curriculum adjustment and adaptation to special needs with reference to a visual, hearing and orthopaedically impaired child.
- Unit 2 Teaching Strategies and Skills* 15 Hrs.
- 2.1 Teaching-learning : concept and relationship.
 - 2.2 Teaching skills: blackboard writing, explaining, dramatization, stimulus variation, reinforcement, illustrating with examples, multi-grade teaching
 - 2.3 Creative teaching: creative writing, drawing and art work
 - 2.4 Learner-centred approach
 - 2.5 Lesson planning, Unit planning
 - 2.6 Types of teacher behaviour - direct and indirect
- Unit 3 Educational Evaluation* 20 Hrs.
- 3.1 Concept of measurement and evaluation.
 - 3.2 Continuous comprehensive evaluation.
 - 3.3 Types of evaluation: summative and formative, norm-referenced and criterion reference testing
 - 3.4 Achievement tests: essay, short answer type, objective types.
 - 3.5 School examinations: oral and written
 - 3.6 Student records: cumulative records, progress reports of children.

SECOND YEAR

60 Hrs.

- Unit 4 Educational Technology: Learning Resources* 20 Hrs.
- 4.1 Meaning, purpose and scope.

- 4.2 Concept of AV aids, use of OB materials, other learning resources.
- 4.3 Concept of hardware and software.
- 4.4 Institutional materials, learning packages.
- 4.5 Educational broadcasts for elementary schools; ETV programmes for children.
- 4.6 Handling of AV equipment of various types.

Unit 5 Personal-Social Guidance 15 Hrs.

- 5.1 Guidance and counselling: concept and approaches.
- 5.2 Guidance for personal-social adjustment
- 5.3 Child centred approach in guidance.
- 5.4 Dealing with problems of children.
- 5.5 Guidance to parents for children growth.

Unit 6 Elementary School Organisation and Management 15 Hrs.

- 6.1 Concept of planning and management.
- 6.2 Planning of timetable, library and games/sports.
- 6.3 Planning school space and facilities
- 6.4 Organising student activities: school assembly, drama, debate, recitation, community singing, organising children's competitions in art/writing work.
- 6.5 Classroom management in general and with reference to special needs.

Unit 7 Action Research 10 Hrs.

- 7.1 Concept of action research.
- 7.2 Steps in action research.
- 7.3 Designing action research projects
- 7.4 What research says to the teacher: Highlighting implications of relevant Indian studies

AV : Audio Visual
 OB : Operation Blackboard.

Teaching of Mother Tongue

At the elementary stage the teaching of the mother tongue has got a special importance. Unlike other subjects, the mother tongue is not merely a subject but is also an effective vehicle of communication for other school subjects. In all the three domains i.e., cognitive, affective and psychomotor, development of the child, mother tongue has an important role to play. Thus, it is imperative that in the teacher education curriculum teaching of mother tongue needs careful consideration.

In the present scheme of studies of 10+2, students are admitted to elementary teacher education institutes after class XII. It is quite possible that their knowledge of the mother tongue may not be adequate for teaching the primary or the upper primary stage of class VIII. So it is necessary that the prospective teachers dealing with teaching of mother tongue should be fully acquainted with its various methodologies of teaching along with all the literary aspects of the language so that they may be well equipped with desired skills and competencies for the successful implementation of curricular or co-curricular activities.

Objectives of Teaching of Mother Tongue

Cognitive

- 1 To develop awareness about the importance of teaching of the mother tongue.
- 2 To acquaint trainees with the correct pronunciation and the script symbols.
- 3 To develop linguistic and literary knowledge in order to improve the teaching of mother tongue.
- 4 To familiarise trainees with the objectives of teaching the mother tongue at the primary and the upper primary levels.
- 5 To analyse the course content for teaching of mother tongue from classes I to VIII, so that prospective language teachers get an understanding of the minimum levels of learning for each class.
- 6 To develop the skill of analysing the lessons and accordingly set the teaching units.

Psychomotor

- 1 To develop the ability to understand the ideas or expressions after reading or listening.
- 2 To develop the ability to express the ideas and feelings in correct and effective manner orally or in writing.
- 3 To develop the capability to use in an effective manner various educational methods and techniques of different language skills and forms of literature.
- 4 To devise low-cost audio-visual aids for language teaching and to develop the ability to make use of modern educational instruments and mass-media for the teaching of the mother tongue.
- 5 To develop competency to understand learning problems of the disadvantaged children with regard to the language and to solve them to the best level possible.
- 6 To develop the skills to understand the importance of mother tongue in co-curricular activities and organise the programmes accordingly.
- 7 To develop the skills of using the system of continuous and comprehensive evaluation.

Affective

- 1 To develop the affective competencies.
- 2 To develop the emotional skills.
- 3 To develop the abilities of rational thinking and beauty consciousness.
- 4 To develop the creative skills.
- 5 To develop awareness about the ten core components as indicated in the National

Curriculum Framework at the school stage.

- 6 To develop interest for self-study.

Guidelines for Development of the Course Outline

Keeping in view the objectives of the teaching of mother tongue at the primary and upper primary levels, prospective teachers of the mother tongue should possess skills relating to:

1. Language
2. Literature
3. Methods of teaching
4. Evaluation.

Further, they should be able to:

- (a) develop language skills in the children keeping in view their individual needs and requirements.
- (b) develop in children literary skills and competencies befitting their stage and level.
- (c) follow right types of teaching methods and techniques for effective class teaching.
- (d) correct the language mistakes of the children and accordingly bring in improvement in his/her own method of teaching.

On the basis of the above mentioned characteristics, the following guidelines have been prepared for development of a course outline for teaching of the mother tongue:

1. The two main components of the curriculum, i.e., course content and methodology of teaching, should be well

- co-ordinated and should not be treated as two separate units. The practical activities should get a due place in the curriculum.
2. Teacher Education Curriculum - A Framework (1986) has a set programme of 60 hours per year for the teaching of mother tongue. So while developing the curriculum for two years, the allotted time of 120 hours should be kept in mind.
 3. To improve the standard of teaching, the linguistic and literary knowledge of the student teachers should be enhanced by organising practical activities and programmes:
 - (a) Keeping in view the requisite learning abilities of class VIII, all the three components i.e., cognitive, psychomotor and affective—should be developed. Therefore, it is necessary that in the curriculum due emphasis be given for acquiring the understanding of language components, the four skills and their teaching methods.
 - (b) For development of the literary aspects, proper scope should be there in the curriculum for the student teachers to give detailed information and also to organise practical activities for ancient, historical, scientific and cultural references given in the textbooks and supplementary readings.
 4. In the National Curriculum Framework for Primary and Secondary Education, ten common core components have been identified. These are: History of India's freedom movement, Constitutional obligations, Content essential to nurture national identity, Indian common cultural heritage, Egalitarianism, democracy and socialism, Equality of the sexes, Protection of environment, Removal of social barriers; Observance of a small family norm, and Inculcation of the scientific temper. **The curriculum should cover all these aspects and related activities.**
 5. In the curriculum, proper care should be given to provide information about the language learning difficulties of children with mild disabilities (visual, hearing, orthopaedic, learning and mental). Proper measures to overcome these difficulties should also be suggested.
 6. In language teaching it is imperative to give information for the use of mass media e.g. newspaper, radio, T.V., etc. Proper emphasis should be laid on the development and preparation of low cost audio-visual aids. Besides, educational technology and other useful instruments for language teaching and the methods of their use should also be discussed in the curriculum.
 7. Local dialects also affect the standard language. If necessary due emphasis should be given for pronunciation, spellings, sentence structure, etc. in the curriculum.
 8. In the curriculum, for the enrichment of language and literary knowledge and methodology, the time allotted is 40 per

- cent and 60 per cent respectively.
9. Evaluation is to be a continuous and comprehensive process and the time allotted for internal and external evaluation is 40% and 60% respectively.

Guidelines for Implementation of Curriculum

For implementation of the curriculum by the teacher educators, the following guidelines have been framed:

1. Diagnostic testing should be made compulsory for every student teacher at the start of the session. For individual students or groups of students having similar language problems, remedial teaching measures should be adopted. Remedial teaching and exercise programmes should be a continuous process.
2. For improvement of the language and literary abilities of the student teachers, various related activities should be organised during different sessions. For improvement of language, exercises of pronunciation, spellings, word formation, vocabulary, sentence structure, paragraph writing etc.; and for development of literary abilities, critical analysis of different lessons from different points of view should be done, explaining the important ideas and giving critical appreciation. While teaching the lessons, the ten core components should be kept in mind and values related to them should be emphasized.
3. The student teachers should be made aware that while teaching the mother tongue, the child's native language should also be given due attention because that affects the standard language. The children should be encouraged to use the standard language.
4. The student teachers should be encouraged to take up extra reading so that their language and literary knowledge get enhanced.
5. The teacher educators should also follow different methods and techniques of teaching e.g., lecture, debate, discussion, seminars, self study, library, group study, comparison etc., so that the student teachers may use them in their future teaching.
6. The student teacher should have a clear concept of minimum levels of learning.
7. The student teachers should be required to do language teaching at three levels (a) Class I & II (b) Classes III to V (c) Classes VI to VIII, because the methods differ at the three stage.
8. The teacher educators should adopt continuous and comprehensive evaluation for evaluating the student teachers.

In the Hindi speaking areas, Hindi is taught as the mother tongue at the elementary level. So the exemplar curriculum for elementary teacher education is given below for the institutions of those states.

मातृभाषा (हिन्दी) शिक्षण

1.0 भूमिका

प्रारंभिक स्तर पर मातृभाषा की शिक्षा का विशेष महत्व है। दूसरे विषयों की तरह यह केवल एक पाठ्य विषय ही नहीं अपितु अन्य विषयों के ज्ञानार्जन का सहज एवं स्वाभाविक माध्यम भी है। बालक के ज्ञानात्मक, भावात्मक और कौशलात्मक विकास में भी मातृभाषा का महत्वपूर्ण योगदान है। विद्यालयी कार्यक्रमों में मातृभाषा की इस बहु आयामी भूमिका का महत्वपूर्ण योगदान है। विद्यालयी कार्यक्रमों में मातृभाषा की इस बहु आयामी भूमिका को देखते हुए यह अनिवार्य है कि शिक्षक-प्रशिक्षण कार्यक्रम में मातृभाषा-शिक्षण की पाठ्यचर्या बनाते समय विशेष सावधानी बरती जाए।

वर्तमान स्थिति में दस वर्ष की सामान्य शिक्षा के पश्चात् विद्यार्थी उच्चतर माध्यमिक/इन्टरमीडिएट कक्षाओं में विभिन्न पाठ्यक्रमों के अंतर्गत अध्ययन करते हैं तथा बारहवीं कक्षा उत्तीर्ण करने के पश्चात् वे प्रारंभिक अध्यापक प्रशिक्षण संस्थानों में प्रवेश ले सकते हैं। यहाँ अनेक

प्रवेशार्थी ऐसे होते हैं, या हो सकते हैं, जिनका मातृभाषा तथा उसके साहित्य का ज्ञान प्रारंभिक स्तर (कक्षा आठ तक) के शिक्षक के लिए पर्याप्त न हो। इसलिए अनिवार्य है कि इस स्तर पर मातृभाषा शिक्षण-प्रशिक्षण कार्यक्रम में शिक्षण विधियों की जानकारी के साथ भाषा और साहित्य संबंधी ज्ञान के समुन्नयन को भी पर्याप्त स्थान दिया जाए ताकि भावी अध्यापकों में भाषा शिक्षण संबंधी उन सभी कुशलताओं तथा क्षमताओं को विकसित किया जा सके जो उन्हें शिक्षण तथा सह-शिक्षण कार्यों को सफलता पूर्वक संपन्न करने में सहायक सिद्ध हों।

1.1 मातृभाषा शिक्षण- प्रशिक्षण के उद्देश्य

(क) ज्ञान परक

- 1 मातृभाषा शिक्षण के महत्व से अवगत कराना।
- 2 मातृभाषा के शुद्ध उच्चारणों तथा अद्यतन देवनागरी लिपि चिह्नों से परिचित कराना।
- 3 मातृभाषा शिक्षण के स्तर को समुन्नत करने के लिए भाषिक एवं साहित्यिक ज्ञान से परिचित कराना।

- 4 प्राथमिक तथा उच्च प्राथमिक स्तर पर मातृभाषा शिक्षण के उद्देश्यों से परिचित कराना।
- 5 कक्षा एक से आठ तक की मातृभाषा की पाठ्यचर्या का विश्लेषण करना सिखाना ताकि वे अलग-अलग कक्षाओं के लिए निर्धारित भाषा योग्यता संबंधी न्यूनतम अधिगम स्तरों की जानकारी प्राप्त कर सकें।
- 6 पाठों का विश्लेषण करके तदनु रूप शिक्षण बिन्दुओं का चयन करने की योग्यता विकसित करना।

(ख) कौशल परक

- 1 भावों एवं विचारों को सुनकर या पढ़कर ग्रहण करने की योग्यता विकसित करना।
- 2 भावों एवं विचारों को मौखिक एवं लिखित रूप में शुद्ध एवं प्रभावशाली ढंग से व्यक्त करने की योग्यता विकसित करना।
- 3 भाषिक कौशलों एवं विभिन्न साहित्यिक विधाओं की शिक्षण विधियों एवं तकनीकों को प्रभावपूर्ण ढंग से प्रयोग करने की क्षमता विकसित करना।
- 4 भाषा शिक्षण में अल्पव्ययी श्रव्य-दृश्य उपकरणों का निर्माण करने तथा आधुनिक शैक्षणिक उपकरणों और जन संचार माध्यमों का अपने शिक्षण में प्रयोग करने की योग्यता विकसित करना।
- 5 सामान्य असमर्थता (डिसएबिलिटी) वाले बालकों

की भाषा संबंधी कठिनाइयों को जानने एवं उनका यथासंभव समाधान करने की क्षमता विकसित करना।

- 6 सहपाठ्यक्रमी क्रियाओं में मातृभाषा के महत्व को समझकर तदनु रूप कार्यक्रमों को आयोजित करने की कुशलता विकसित करना।
- 7 सतत एवं व्यापक मूल्यांकन करने की कुशलता विकसित करना।

(ग) भाव परक

- 1 अनुभूत्यात्मक योग्यता का विकास करना।
- 2 संवेदन शीलता की योग्यता का विकास करना।
- 3 सौन्दर्य बोध तथा चिन्तन की योग्यता का विकास करना।
- 4 सृजनात्मक योग्यता को विकसित करना।
- 5 राष्ट्रीय पाठ्यक्रम में वर्णित दस केन्द्रिक तत्त्वों से संबंधित मूल्यों एवं सद्वृत्तियों के प्रति चेतना विकसित करना।
- 6 स्वाध्याय के प्रति रुचि का विकास करना।

1.2 पाठ्यचर्या-विकास संबंधी मार्गदर्शक निर्देश

प्राथमिक तथा उच्च प्राथमिक स्तर पर भाषा शिक्षण के उद्देश्यों को दृष्टि में रखते हुए मातृभाषा के भावी शिक्षक के लिए निम्नांकित योग्यताएं अपेक्षित हैं :

1. भाषिक
2. साहित्यिक

3. शिक्षण विधि संबंधी

4. मूल्यांकन संबंधी।

इन योग्यताओं के आधार पर वह-

- (क) बालकों की भाषिक आवश्यकतों की पहचान कर उनसे संबंधित भाषा कौशलों का विकास कर सकेगा।
- (ख) स्तर के अनुसार उनकी साहित्यिक योग्यताओं को विकसित कर सकेगा।
- (ग) प्रभावपूर्ण कक्षा शिक्षण के लिए उचित शिक्षण-विधियों तथा तकनीकों का अनुसरण कर सकेगा।
- (घ) बालकों की भाषा संबंधी त्रुटियों का निदान व उपचार कर सकेगा तथा उनको ध्यान में रखते हुए अपनी शिक्षण-विधि में यथोचित संशोधन कर सकेगा।

इन अपेक्षित योग्यताओं को दृष्टि में रखते हुए मातृभाषा शिक्षण-प्रशिक्षण की पाठ्यचर्या-निर्माण के निम्नलिखित मार्गदर्शक निर्देश निर्धारित किए गए हैं:

- (1) शिक्षक-प्रशिक्षण पाठ्यचर्या के मुख्यतः दो घटकों-विषयवस्तु एवं शिक्षण विधि का संयोजन समन्वित रूप से किया जाए उन्हें पृथक-पृथक न समझा जाए। इन दोनों घटकों से संबंधित प्रायोगिक कार्यों को पाठ्यचर्या में यथोचित स्थान दिया जाना चाहिए।
- (2) अध्यापक शिक्षा पाठ्यक्रम - एक रूपरेखा (1989) में मातृभाषा-शिक्षण के लिए प्रतिवर्ष 10% (60 घंटे) समय निर्धारित किया गया

है। अतः उसकी द्विवर्षीय पाठ्यचर्या का निर्माण 120 घंटे की समयावधि की दृष्टि में रखकर किया जाना उचित होगा।

शिक्षण-स्तर को समुन्नत करने की दृष्टि से यह अनिवार्य है कि छात्राध्यापकों के भाषा एवं साहित्य संबंधी ज्ञान का विस्तार किया जाए। इसके लिए अभ्यासात्मक कार्यों को उचित स्थान दिया जाए।

(क) कक्षा आठ तक की अपेक्षित भाषा-योग्यताओं को दृष्टि में रखते हुए छात्राध्यापकों का भाषा विकास तीन स्तरों - ज्ञानात्मक, कौशलात्मक और भावात्मक-पर करना अपेक्षित है। इसके लिए आवश्यक है कि भाषिक तत्त्वों, चारों भाषा कौशलों और उनकी शिक्षण विधियों की जानकारी दिए जाने की व्यवस्था पाठ्यचर्या में रहे। इनसे संबंधित अभ्यासात्मक कार्यों का चयन करते समय भावात्मक पक्ष पर भी बल रहे।

(ख) साहित्य संबंधी योग्यताओं के विकास के लिए छात्राध्यापकों को कक्षा आठ तक की पाठ्य पुस्तकों, पूरक एवं अतिरिक्त पुस्तकों में दिए गए पाठों से संबंधित पौराणिक, ऐतिहासिक, वैज्ञानिक एवं सांस्कृतिक संदर्भों की विस्तृत जानकारी देने और उनसे संबंधित व्यावहारिक कार्य कराने की व्यवस्था भी पाठ्यचर्या में होनी चाहिए।

4. राष्ट्रीय पाठ्यचर्या की रूपरेखा में दस केन्द्रिक तत्वों का संकेत किया गया है; यथा-भारतीय स्वतंत्रता आन्दोलन का इतिहास, संविधान में निर्दिष्ट दायित्व, राष्ट्रीय एकता के पोषक तत्व, भारत की साझी सांस्कृतिक धरोहर, समता, लोकतंत्र, और धर्म निरपेक्षता, स्त्री-पुरुष समानता, पर्यावरण संरक्षण, सामाजिक बाधाओं का निवारण, लघु परिवार की मान्यता का निर्वाह, और वैज्ञानिक दृष्टिकोण का विकास। इन तत्वों से संबंधित जीवन मूल्यों तथा सद्गुणों को विकसित करने के लिए विविध कार्यक्रमों का उल्लेख पाठ्यचर्या में रहे।
5. सामान्य असमर्थता (दृष्टि विषयक, श्रवण विषयक, अस्थि विषयक, अधिगम विषयक एवं मानसिक असमर्थता) वाले बालकों की भाषा संबंधी कठिनाइयों की जानने एवं यथा संभव समाधान करने के तरीकों की जानकारी देने की व्यवस्था पाठ्यचर्या में रहे।
6. भाषा शिक्षण में जन संचार माध्यमों-जैसे समाचार पत्र, रेडियो, दूरदर्शन आदि के उपयोग की जानकारी देना अपेक्षित है। अल्पव्ययी श्रव्य-दृश्य उपकरणों के निर्माण को भी उचित स्थान दिया जाए। इसके अतिरिक्त शैक्षिक प्रौद्योगिकी और भाषा संबंधी उपयोगी उपकरणों की प्रयोग-विधि की चर्चा भी पाठ्यचर्या में रहे।
7. स्थानीय बोली मानक भाषा को प्रभावित करती है। आवश्यकता होने पर उच्चारण, वर्तनी, वाक्य-रचना आदि संबंधी प्रभाव की

जानकारी दिए जाने की व्यवस्था पाठ्यचर्या में रहे।

8. समय की दृष्टि से भाषिक एवं साहित्यिक ज्ञान-समुन्नयन को एक तिहाई तथा शिक्षण विधि को दो तिहाई स्थान देने की व्यवस्था रखी जाए।
9. भाषा सम्प्राप्ति का मूल्यांकन सतत एवं व्यापक हो। इसके लिए पाठ्यचर्या में आंतरिक एवं बाह्य मूल्यांकन की व्यवस्था क्रमशः 40 प्रतिशत तथा 60 प्रतिशत के अनुपात में रहे। शिक्षण विधि के सैद्धांतिक पक्ष का मूल्यांकन बाह्य हो। भाषिक एवं साहित्यिक ज्ञान-समुन्नयन तथा उसके अभ्यास कार्य एवं शिक्षण विधि संबंधी प्रायोगिक कार्यों का मूल्यांकन आंतरिक रखना ही बांछनीय है।

1.3 पाठ्यचर्या क्रियान्वयन के लिए मार्ग दर्शक निर्देश

पाठ्यचर्या क्रियान्वित करने की दृष्टि से अध्यापक-प्रशिक्षकों के लिए कुछ निर्देश निर्धारित किए गए हैं जो निम्नलिखित हैं-

- 1 सत्रारंभ में प्रत्येक छात्राध्यापक की भाषा योग्यता का निदानात्मक परीक्षण अनिवार्य होना चाहिए। इसके पश्चात् व्यक्तिगत स्तर पर तथा अनेक छात्रों की एक ही प्रकार की भाषा-ज्ञान संबंधी कमजोरी के आधार पर सामूहिक रूप में भी उपचारात्मक शिक्षण के उपायों को अपनाया श्रेयस्कर होगा। उपचारात्मक शिक्षण एवं अभ्यासात्मक कार्य आवश्यकतानुसार सतत प्रक्रिया के रूप में अपनाए जाएँ।

- 2 छात्राध्यापकों की विभिन्न भाषिक एवं साहित्यिक योग्यताओं के समुन्नयन के लिए उनसे संबंधित विविध प्रकार के अभ्यासात्मक कार्य विभिन्न सत्रों में करवाए जाएँ। जैसे-भाषिक योग्यता के विकास के लिए उच्चारण, वर्तनी, शब्द निर्माण, शब्द-भंडार वृद्धि, वाक्य-रचना, अनुच्छेद-रचना आदि संबंधी अभ्यास। साहित्यिक योग्यताओं के समुन्नयन के लिए विभिन्न साहित्यिक विधाओं के पाठों को आलोचनात्मक दृष्टि से पढ़कर विश्लेषण करना, महत्वपूर्ण अंशों को समझना और सौन्दर्य बोध करना तथा पाठों की पढ़ाते समय दस केन्द्रिक तत्वों को ध्यान में रखते हुए उनसे संबंधित जीवन-मूल्यों को विकसित करना।
- 3 छात्राध्यापकों को इस बात से परिचित कराना कि मातृभाषा सीखते-सिखाते समय हमें बालक के परिवेश की बोली को भी ध्यान में रखना चाहिए क्योंकि वह भाषा के मानक रूप को प्रभावित करती रहती है। उन्हें कक्षा में अधिकाधिक मानक भाषा का प्रयोग करने को प्रोत्साहित करना चाहिए।
- 4 छात्राध्यापकों को अतिरिक्त पठन के लिए प्रोत्साहित किया जाए ताकि उनके भाषा एवं साहित्य के ज्ञान का विस्तार हो सके।
- 5 अध्यापक-प्रशिक्षकों को स्वयं भी पढ़ाते समय विभिन्न शिक्षण विधियों एवं तकनीकों का अनुसरण करना चाहिए ताकि उनके छात्राध्यापक आगे चलकर उन्हें अपने शिक्षण कार्य में प्रयोग में ला सकें। यथा-भाषण, वाद-विवाद, चर्चा-परिचर्चा, संगोष्ठी, स्वाध्याय, विस्तार भाषण-माला, पुस्तकालय संदर्भ, परियोजना, सामूहिक कार्य, तुलना, प्रयोग विधि, आदि।
- 6 छात्राध्यापकों को न्यूनतम अधिगम स्तर की स्पष्ट धारणा दी जाए।
- 7 छात्राध्यापकों से भाषा-शिक्षण कार्य तीन स्तरों पर करवाया जाना अपेक्षित है-
- (क) कक्षा एक और दो
(ख) कक्षा तीन से पाँच
(ग) कक्षा छः से आठ।
- क्योंकि इन स्तरों पर प्रयुक्त शिक्षण विधियों से पर्याप्त अंतर आ जाता है।
- 8 छात्राध्यापकों की भाषा संप्राप्ति के मूल्यांकन के लिए अध्यापक-प्रशिक्षकों को भी सतत एवं व्यापक मूल्यांकन प्रक्रिया को अपनाना चाहिए।
- हिन्दी भाषी राज्यों में प्रारंभिक स्तर पर हिन्दी को मातृभाषा के रूप में पढ़ाया जाता है। अतः यहाँ उन राज्यों के प्रारंभिक शिक्षक प्रशिक्षण संस्थानों के लिए हिन्दी-शिक्षण की पाठ्यचर्या को नमूने के रूप में दिया गया है।

1.4 मातृभाषा (हिन्दी) शिक्षण की पाठ्यचर्या

प्रथम वर्ष : 60 घंटे

भाग-क : भाषिक ज्ञान-समुन्नयन (13 घंटे सैद्धांतिक पक्ष)

इकाई-1 हिन्दी की ध्वनि-व्यवस्था

स्वर, संघ्यक्षर स्वर, अनुनासिक स्वर, व्यंजन, संयुक्त व्यंजन, अक्षर, बलाघात और अनुतान, उच्चारण प्रक्रिया, स्थान और प्रयत्न।

इकाई-2 देवनागरी लिपि तथा हिन्दी वर्तनी

अद्यतन देवनागरी लिपि का स्वरूप, प्रकृति, विशेषताएँ, हिन्दी वर्णों के मानक और वैकल्पिक रूप, वर्ण व्यवस्था के नियम, हिन्दी वर्तनी का मानक रूप, उसके नियम एवं समस्याएँ।

इकाई-3 शब्द-भंडार

शब्द-भंडार-आधारभूत शब्दावली, शब्दों के प्रकार-तत्सम, तद्भव एवं विदेशी, शब्दों के आर्थी संबंध-समानार्थी, विपरीतार्थी, अनेकार्थी, मिलती-जुलती ध्वनियों वाले शब्द, द्विरुक्ति शब्द आदि तथा इन शब्दों का प्रयोग, मुहावरे और लोकोक्तियाँ-उनके अर्थ तथा प्रयोग, शब्द-कोश का प्रयोग।

भाग-ख : शिक्षण विधि (30 घंटे सैद्धांतिक पक्ष)

इकाई-1 मातृभाषा शिक्षण के उद्देश्य

मातृभाषा का महत्व, पाठ्यक्रम में स्थान, मानक भाषा और बोलियाँ, प्राथमिक स्तर पर मातृभाषा शिक्षण के उद्देश्य, कक्षा एक से पाँच तक के लिए निर्धारित न्यूनतम अधिगम स्तर।

इकाई-2 श्रवण कौशल

श्रवण की प्रकृति, उद्देश्य, तथा अपेक्षित व्यवहार परिवर्तन, श्रवण-शिक्षण की विधियाँ, पाठ-योजना निर्माण, श्रवण शक्ति के विकास का मूल्यांकन, श्रवण-दोष, कारण एवं सुधार के उपाय।

इकाई-3 मौखिक अभिव्यक्ति कौशल

मौखिक अभिव्यक्ति की परिभाषा, उद्देश्य, अपेक्षित व्यवहार परिवर्तन, अभिव्यक्ति कौशल के विविध पक्ष-शुद्ध उच्चारण, गति, बलाघात, अनुतान तथा हाव-भाव, मौखिक अभिव्यक्ति के विविध रूप-विवरण, कहानी, संवाद/नाटक, कविता पाठ, भाषण, वाद-विवाद आदि तथा अवसरानुकूल विचारों की मौखिक अभिव्यक्ति (धन्यवाद ज्ञापन, स्वागत परिचय आदि), शिक्षण विधियाँ, पाठ-योजना निर्माण, मूल्यांकन, उच्चारण तथा अभिव्यक्ति-दोष, कारण एवं सुधार के उपाय।

इकाई-4 पठन कौशल

पठन-प्रक्रिया की प्रकृति और महत्व, पठनारंभ योग्यता, पठन के प्रकार-मौन एवं सस्वर, पठन-शिक्षण की विधियाँ, पाठ योजना निर्माण, पठन-रुचि का विकास, पठन का मूल्यांकन, पठन-दोष, कारण एवं सुधार के उपाय।

इकाई-5 लेखन कौशल

(क) लेखन-शिक्षण : लेखन की प्रकृति, हिन्दी वर्णों का मानक रूप, लेखनारंभ योग्यता, लेखन के प्रकार-सुलेख, अनुलेख एवं श्रुतलेख, लेखन-शिक्षण विधियाँ, लेखन कार्य का मूल्यांकन, लेखन-दोष, कारण एवं सुधार के उपाय।

(ख) वर्तनी-शिक्षण : वर्तनी संबंधी अशुद्धियों की पहचान, कारण, वर्गीकरण एवं सुधार के उपाय।

इकाई-6 गद्य-शिक्षण

उद्देश्य, महत्व एवं उपयोगिता, गद्य-शिक्षण के अंग-वाचन, व्याख्या तथा विचार विश्लेषण, गद्य के प्रकार-कहानी, पत्र, निबंध, नाटक, जीवनी आदि।

इकाई-7 पद्य-शिक्षण

उद्देश्य, महत्व एवं उपयोगिता, कविता-शिक्षण के अंग-वाचन, व्याख्या तथा भाव विश्लेषण।

इकाई-8 हिन्दी शिक्षण में शैक्षणिक सामग्री

शैक्षणिक सामग्री का महत्व, उपयोगिता, प्रकार तथा अल्पव्ययी श्रव्य-दृश्य सामग्री का निर्माण।

इकाई-9 गृहकार्य

गृह कार्य का महत्व, स्वरूप, संशोधन तथा मूल्यांकन विधियाँ।

इकाई-10 विशेष आवश्यकता वाले बालक

सामान्य रूप से असमर्थ (दृष्टि विषयक, श्रवण-विषयक, अस्थि-विषयक, अधिगम-विषयक एवं मानसिक) बालकों की व्यवहारगत विशेषताएँ, भाषा संबंधी कठिनाइयाँ तथा समाधान की विधियाँ।

विशेष : सामान्य असमर्थता वाले बालकों की कठिनाइयों से संबंधी कार्य सभी कौशलों में क्रमशः निहित हैं।

प्रायोगिक कार्य (7+10=17 घंटे)

(क) भाषा-समुन्नयन संबंधी (7 घंटे)

1. उच्चारण संबंधी -

मातृभाषा पर स्थानीय बोली तथा प्रभावों के कारण होने वाली उच्चारण अशुद्धियाँ जैसे-स-ष-श, व-ब, छ-क्ष, न-ण, ड-ड़, ढ-ढ़, ज-ज़, फ-फ़ आदि वर्णों से संबंधित शब्दों का संकलन तथा उच्चारण अभ्यास।

2. बर्तनी संबंधी -

दो, तीन, चार वर्णों वाले मात्रा रहित तथा मात्राओं वाले शब्दों का संकलन तथा प्रयोग।

-अनुस्वार तथा अनुनासिकतायुक्त शब्दों का संकलन तथा प्रयोग।

-संयुक्ताक्षरयुक्त शब्दों का संकलन तथा प्रयोग।

-उपर्युक्त भाषिक बिन्दुओं के प्रयोग के लिए वर्ण-चित्र, शब्द-चित्र, फ्लैश कार्ड, चार्ट आदि बनाना।

3. शब्द-भंडार-वृद्धि संबंधी -

कक्षा पाँच तक की पाठ्य-पुस्तकों व पूरक पुस्तकों में प्रयुक्त कुछ पर्यायवाची, विलोम, समरूपी और भिन्नार्थक शब्दों का संकलन।

- पाठ्य-पुस्तकों, पूरक पुस्तकों तथा अन्य पत्र-पत्रिकाओं से मुहावरे एवं लोकोक्तियाँ चुनकर उन्हें वाक्यों में प्रयोग करना।
- पाठ्य पुस्तकों में से कठिन शब्दों का चयन कर उनके अर्थ शब्द कोष से देखकर लिखना।
- अनेक शब्दों के लिए एक शब्द का प्रयोग करना।
- एक से सौ तक की संख्याओं को शब्दों में लिखना।
- दिन और महीनों (दिसी व अंग्रेजी दोनों) के नाम लिखना।

(ख) शिक्षण विधि संबंधी (10 घंटे)

1 विभिन्न भाषा-कौशलों के शिक्षण से संबंधित कुछ पाठ योजनायें बनाना यथा-

- (क) श्रवण कौशल संबंधी-कहानी श्रवण, बाल कविता श्रवण, ध्वनि विभेदीकरण (ह्रस्व, दीर्घ मात्रा, श-स, न-ण आदि)। बच्चों की रुचि पर आधारित वार्ता, श्रवण आदि।
- (ख) मौखिक अभिव्यक्ति संबंधी-चित्र-वर्णन, घटना-वर्णन, अनौपचारिक वार्ता, सस्वर वाचन, अंत्याक्षरी, कहानी कहना आदि।
- (ग) लेखन-कौशल संबंधी-लेखन आरंभ योग्यता विकास, वर्णों का खंडशः लेखन, मात्राओं का योग, अनुनासिक तथा अनुस्वार चिह्न, ह्रस्व-दीर्घ मात्राओं का योग, विराम चिह्न, श्रुत लेख, सुलेख, अनुलेख आदि।
- (घ) पठन कौशल संबंधी-पठन आरंभ योग्यता विकास (आकृति विभेद, वर्ण पठन, शब्द पठन आदि।), सस्वर पठन आदि।

2 भाषा-कौशलों के शिक्षण से संबंधित अल्पव्ययी श्रव्य-दृश्य उपकरणों का निर्माण करना जैसे-चार्ट, मॉडल, शब्द-चित्र, कार्डों पर लिखे शब्द समूहों का सैट, कठपुतलियाँ, मुखौटे आदि।

3 कक्षा को विभिन्न समूहों में बाँटकर भाषा संबंधी शैक्षणिक सामग्री तैयार करवाना जैसे-नवीन शब्द सूची, मुहावरों सूची, पर्यायवाची सूची, विलोम शब्द सूची आदि।

4 वर्तनी, व्याकरणिक रूपों, लिंग, वचन, काल, कारक आदि के आधार पर विभिन्न प्रकार के भाषा-अभ्यासों का निर्माण करना।

5 सस्वर पठन का अभ्यास करना।

6 भाषा-खेल बनाना जैसे-शब्द अंत्याक्षरी, वाक्य अंत्याक्षरी, प्रसंगों पर आधारित शब्दों के खेल, पहेलियाँ आदि।

7 पत्र-पत्रिकाएँ और अतिरिक्त पुस्तकें पढ़ना, उनमें से कहानियाँ एवं बालोपयोगी गीतों का संकलन करना तथा पढ़ी हुई विषय सामग्री पर कक्षा में चर्चा करना।

द्वितीय वर्ष: 60 घंटे

भाग-क : भाषिक एवं साहित्यिक ज्ञान-समुन्नयन (13 घंटे सैद्धांतिक पक्ष)

इकाई-1 शब्द-रचना

शब्द निर्माण, उपसर्ग, प्रत्यय, संधि और समास के नियम।

इकाई-2 वाक्य रचना

शब्द क्रम (कर्ता, कर्म और क्रिया का स्थान), लिंग, वचन और पुरुष के अनुसार क्रियान्विति, पदबन्ध, उपवाक्य, वाक्य-विश्लेषण, वाक्य के प्रकार और विराम चिह्नों का प्रयोग।

इकाई-3 हिन्दी साहित्य का परिचय

आठवीं कक्षा तक की पाठ्यपुस्तकों में समाविष्ट प्रमुख साहित्यकारों तथा उनकी रचनाओं के संदर्भ में हिन्दी का अध्ययन।

इकाई-4 साहित्यिक विधाओं का परिचय

कविता, कहानी, निबंध, जीवनी, आत्मकथा, एकांकी आदि का सामान्य परिचय।

इकाई-5 संदर्भ परिचय

प्राथमिक स्तर पर बालोपयोगी कविताओं एवं कहानियों का अध्ययन तथा उनका सार लेखन और उच्च प्राथमिक स्तर पर पाठ्यपुस्तकों एवं पूरक पुस्तकों में समाविष्ट प्रमुख सांस्कृतिक, पौराणिक, साहित्यिक, वैज्ञानिक एवं ऐतिहासिक संदर्भों का परिचय।

इकाई-6 साहित्यिक सौन्दर्य के आधार

अलंकार-उपमा, यमक, अनुप्रास आदि तथा तुलना व उदाहरण द्वारा साहित्यिक सौन्दर्य की सराहना।

इकाई-7-राष्ट्रीय मूल्य तथा विषय
राष्ट्रीय शिक्षा नीति में एकीकृत दस केन्द्रिय तत्वों की जानकारी।

इकाई-8 हिन्दी शिक्षण उन्नयन से संबंधित प्रमुख संस्थाएं - परिचय तथा कार्य
एन.सी.ई.आर.टी., केन्द्रीय हिन्दी संस्थान, केन्द्रीय हिन्दी निदेशालय तथा दक्षिण हिन्दी प्रचार सभा द्वारा किए जाने वाले कार्य।

इकाई-9 हिन्दी भाषा में प्रकाशित प्रमुख पत्र-पत्रिकाएँ तथा बाल साहित्य
प्रमुख पत्र-पत्रिकाओं और बाल साहित्य का सामान्य परिचय।

भाग-ख : शिक्षण विधि (30 घंटे सैद्धांतिक पक्ष)

इकाई-1 भाषा शिक्षण के उद्देश्य
उच्च प्राथमिक स्तर पर भाषा शिक्षण के उद्देश्य तथा अपेक्षित व्यवहार परिवर्तन।

इकाई-2 साहित्य की विभिन्न विधाओं का शिक्षण एवं पाठ योजना निर्माण
कविता, कहानी, निबंध, एकांकी, जीवनी, पत्र, आत्मकथा, डायरी आदि विधाओं के शिक्षण के उद्देश्य, विधियाँ तथा पाठ-योजना-निर्माण।

इकाई-3 व्याकरण शिक्षण
महत्त्व, उद्देश्य, संज्ञा, सर्वनाम, विशेषण, लिंग, वचन आदि की शिक्षण विधियाँ तथा पाठ-योजना-निर्माण।

इकाई-4 रचना शिक्षण
महत्त्व एवं उद्देश्य, लिखित रचना के रूप (i) स्वतंत्र रचना - संवाद, कहानी, जीवनी आदि (ii) निर्देशित रचना-पत्र, निबंध, अनुच्छेद संक्षेपन, पल्लवन, टिप्पणी आदि, रचना-शिक्षण की विधियाँ, पाठ-योजना-निर्माण, लिखित कार्य का मूल्यांकन, अध्यापकीय निर्देश एवं सहयोग।

इकाई-5 हिन्दी-शिक्षण से संबंधित कार्यकलाप
महत्त्व, योजना-निर्माण, क्रियान्वयन, मूल्यांकन और प्रतिवेदन लेखन।

इकाई-6 हिन्दी शिक्षण में आधुनिक शैक्षणिक तथा साधन
उपकरणों की उपयोगिता, प्रकार, भाषा-शिक्षण में प्रयोग, जन-संचार के माध्यम।

इकाई-7 भाषा-शिक्षण में मूल्यांकन

सतत् एवं व्यापक मूल्यांकन की संकल्पना, मूल्यांकन के उद्देश्य, परीक्षा के प्रकार-मौखिक एवं लिखित, संप्राप्ति परीक्षण एवं निदानात्मक परीक्षण, प्रश्न-पत्र के प्रकार-आदर्श प्रश्न-पत्र, इकाई प्रश्न पत्र, मौखिक पत्र आदि।

प्रायोगिक कार्य (7 + 10 = 17 घंटे)

(क) भाषिक एवं साहित्यिक ज्ञान-समुन्नयन संबंधी (7 घंटे)

- 1 शब्द निर्माण संबंधी कार्य जैसे-उपसर्ग एवं प्रत्यय की सहायता से शब्दों का निर्माण करना।
- 2 वाक्य निर्माण संबंधी कार्य जैसे-कक्षा आठ तक की पाठ्यपुस्तकों के आधार पर विभिन्न प्रकार के वाक्यों का चयन करना, प्रश्न सूचक, आज्ञा सूचक, निषेधात्मक और स्वीकारात्मक वाक्यों की रचना करना। तथा पुरुष, लिंग, वचन, और कारक की अन्विति, वाक्य-रूपांतर और वाक्य-विश्लेषण करना।
- 3 मानक भाषा में अनुच्छेद लिखना तथा यथास्थान उपयुक्त मुहावरों, लोकोक्तियों आदि का प्रयोग करना।
- 4 मौलिक रचना लेखन का अभ्यास करना।
- 5 कक्षा छह से आठ तक की पाठ्यपुस्तकों में समाविष्ट सांस्कृतिक, पौराणिक, वैज्ञानिक, साहित्यिक एवं ऐतिहासिक तथ्यों/संदर्भों की सूची सामूहिक कार्य के रूप में तैयार करना, उनसे संबंधित विस्तृत जानकारी विभिन्न संदर्भ ग्रन्थों जैसे शब्द-कोश, पुराण संदर्भ कोश, विश्व कोश, साहित्य-कोश आदि पुस्तकों से संकलित करना।
- 6 पाठ्यपुस्तकों में दिए गए प्रमुख साहित्यिकारों का परिचय तथा उनसे संबंधित अध्यापन सामग्री जैसे-चार्ट, एलबम, भित्ति-पत्रिका आदि बनाना।
- 7 हिन्दी भाषा में प्रकाशित होने वाली कुछ पत्र-पत्रिकाएँ पढ़कर उपयोगी सामग्री का चयन करना।
- 8 बालोपयोगी पुस्तकों एवं पत्रिकाओं को पढ़कर उनमें से महापुरुषों के कथनों, कविताओं, देशप्रेम के गीतों एवं नीति संबंधी कहानियों पर आधारित संकलन-पुस्तिका का निर्माण करना तथा शिक्षण के समय उस सामग्री का प्रसंगानुसार प्रयोग करना।
- 9 राष्ट्रीय मूल्यों तथा केन्द्रिक पाठ्यचर्या के प्रमुख तत्त्वों को ध्यान में रखकर कहानियों का संकलन तैयार करना।

(ख) शिक्षण विधि संबंधी (10 घंटे)

1. विभिन्न विधाओं की पाठ योजनाएँ बनाना यथा गद्य-शिक्षण, पद्य-शिक्षण, रचना- शिक्षण, व्याकरण- शिक्षण आदि।
2. हिन्दी शिक्षण से संबंधित सह-शैक्षणिक कार्यकलापों का आयोजन करना जैसे-सामूहिक गान, नाटकीय कार्यकलाप, अभिनयपूर्ण गीत, वाद-विवाद, कहानी, निबंध, पत्र लेखन, शुद्ध लेखन प्रतियोगिता आदि।
3. किसी एक विधा के मूल्यांकन के लिए आदर्श प्रश्न पत्र एवं उत्तर तालिका की संरचना करना अथवा उपलब्धि परीक्षा पत्र की संरचना करना एवं परीक्षा लेना।
4. किसी एक विधा से संबंधित नैदानिक परीक्षा पत्र एवं उपचारात्मक अभ्यास माला का निर्माण करना।

1.5 मूल्यांकन पद्धति

भाषिक एवं साहित्यिक ज्ञान-समुन्नयन तथा शिक्षण विधि के आंतरिक एवं बाह्य मूल्यांकन के लिए अंक व्यवस्था प्रतिशत के रूप में निम्नलिखित ढंग से प्रस्तावित की जाती है :

आन्तरिक मूल्यांकन : 40 प्रतिशत

- (क) भाषिक एवं साहित्यिक ज्ञान समुन्नयन का सैद्धान्तिक पक्ष-20 प्रतिशत
- (ख) भाषिक एवं साहित्यिक ज्ञान संबंधी प्रायोगिक कार्य -10 प्रतिशत
- (ग) शिक्षण विधि संबंधी प्रायोगिक कार्य-10 प्रतिशत

बाह्य मूल्यांकन : 60 प्रतिशत

शिक्षण विधि पर आधारित लिखित परीक्षा।

आंतरिक मूल्यांकन में आवधिक परीक्षा, कक्षा कार्य, गृह कार्य, प्रायोगिक/अभ्यासात्मक कार्य आदि के प्राप्तांकों को सम्मिलित किया जा सकता है।

विशेष : प्रारंभिक स्तर शिक्षा प्राप्ति की दृष्टि से अत्यन्त महत्वपूर्ण है। इस स्तर के अध्यापक योग्य तथा पूर्णतया प्रशिक्षित होने चाहिए। इन दो बातों को ध्यान में रखकर पाठ्यचर्या का निर्माण किया गया है। पर ऐसा लगता है कि 120 घंटे की सीमा को देखते हुए यह कुछ भारी हो गया है। आप अपनी स्थिति के अनुसार इसका उपयोग कर सकते हैं।

Teaching of English Language

THE National Policy on Education (NPE), 1986 has provided new direction for changes in the school curriculum which are outlined in the National Curriculum for Elementary and Secondary Education (NCERT 1988). The new directions emphasize once more a child centred approach, interactive styles of learning and suggest minimum levels of learning at different stages of school education. The NCTE document has also emphasised the need for rethinking on preservice training of teachers and outlined a course content of the training programme and suggested new strategies for teacher education. There can be no doubt about the fact that the teacher is a crucial factor in the teaching-learning process. The training curriculum must help the teacher to create a desirable classroom climate to plan a variety of learning activities, to produce and use learning materials effectively and to try to identify with the needs and aspirations of students. In the process of modernisation of preservice and inservice teacher education, the teaching of languages and especially of English as a second language must be considered. In spite of all our attempts at the national and state levels, there is a great deal that is wrong with the teaching of English and our students after years of being taught the English language are not able

to understand, speak, read or write English which can be termed as standard, i.e. acceptable to other speakers of English as a second language. The need for rethinking on the training programme has two major causes as mentioned earlier, the new directions in education and the near failure of English as language caused by the fact that it is taught as a content-course rather than a skill course.

Objectives

The objectives of the pre-service training programme are as follows:

- 1 It should improve the teacher's own mastery of the basic skills in English and of the teaching techniques of English as a second language. The weightage and time may be in proportion to skill training i.e., what to teach and how to teach should get more time than a theoretical description of method.
- 2 It should help the teacher to master the English language so that it can be used as a tool both for communication and further learning, the emphasis should not be on learning about the language at this stage.

- 3 It should give the teacher a sound applied course in English phonology, grammar, vocabulary and meaning systems so that he can use them and teach lexical (vocabulary) items which pose problems to his pupil.
- 4 It should train the teacher in effective methods and techniques of teaching English as a second language, conforming to the latest thinking on language teaching methods.
- 5 It should enable the teacher to apply the basic principles of related disciplines such as linguistics, psychology and sociology which he is learning in his foundation course and connect them to English as Second Language (ESL) procedures.
- 6 It should give the teacher the experience and understanding of the dynamics of group work.
- 7 Part of the training should give the teacher the techniques of evaluating his own teaching as well as the pupil's learning.
- 8 Above all, it must train the teacher in creating warm classroom environment conducive to learning and to ego enhancement.
- 9 It must help the teacher to understand the specific objectives as outlined in the National School Curriculum for VI, VII and VIII, and particularly problems that he may have to face in his state.
- 10 It should prepare the teacher to be first a successful teacher, an agent of social change and leader in the community. Since language will always have social

and cultural association, it is important that the teacher should understand how to work with pupils from all strata of society.

Pre-service training alone will not ensure mastery of English and language teaching methods. Therefore, regular inservice (every 3 years) training must be planned for all teachers. Inservice courses must focus on specific areas of language and language teaching instead of dealing with generalities.

English Language Teaching in India

- 1 An analysis of English language teaching (ELT) in India shows that most of it takes place through the treatment of single sentences without considering in what contexts these sentences occur. This is artificial and has no consideration for psychological, social or interactive dimensions. In short, English language is at present generally not taught in a meaningful fashion.
- 2 The textbooks prescribed in many states are structural, emphasizing selection and grading of grammatical and vocabulary items. This approach encourages passive skills. Further, the teacher can only teach what he knows.
- 3 The emphasis in the methodology of teaching English has until recently been on the teacher and teaching. The learner and his needs have been ignored. Even passive skills like oral comprehension, note-taking, reading and other study skills necessary for achieving the objec-

- tive of using English as a library language have been sadly neglected.
- 4 There is very little, if any, self-directed learning in English. The student is even today very dependent on the teacher and cannot undertake further study of the language on his own.
 - 5 Communicative competence in the language is very poor. Most learners even after completion of a set standardised course are unable to speak well formed sentences or even to understand the speech of others in a cultural or social context.
 - 6 There is even today a vast deal of difference in spoken English as it is taught in different parts of India with their diverse mother tongue backgrounds. The teacher of English, however, could also use the basic skills acquired in the mother tongue in a constructive manner which he rarely does. The teacher should learn the use of mother-tongue as a means of facilitating learning, self-expression and promotion of social identity of the child at least in the initial stages.
 - 7 Today learners are motivated to learn English only as a course requirement rather than as a language that can serve his deeper needs.
 - 8 English language teaching does not facilitate or release the creativity of the learner in any sphere e.g., literature, science or management where English is used as a medium.

The situation is challenging and a positive approach in the right direction would definitely

improve the scene of ELT. A beginning must be made in our teacher training colleges, from where the results of a more enlightened approach will filter down to classrooms. A sense of commitment on the part of our teacher educators will certainly go a long way in facing the challenge of ELT in the country.

Specific Objectives

At the end of the preservice elementary teacher training programme, the student teacher should be able—

- 1 to comprehend spoken English in formal and informal styles and in different modes.
- 2 to consult dictionaries and be able to understand meaning of a word in a context.

Guidelines for Teacher Educators

The teacher educator must keep in mind that:

- 1 There are to be no formal lectures about methods and on topics which are outlined below but only with brief presentations. The student teacher will imitate what the teacher educator does rather than do as he says. The teacher educator must keep in mind that the methods course must be practical demonstration of what the theories recommend.
- 2 There is no artificial division between content enrichment and methods. The student teacher will go over the syllabus for 6th, 7th and 8th classes with his teacher educator and while learning how to teach these points, he should improve his mastery of the English language.
- 3 All the learning of the English language

will be implicit and not explicit for the pupils in schools. Because we cannot assume that the student teacher has full mastery of the basic structure of sounds, words, grammar and meaning. The student teacher must be helped to strengthen his language, not through formally structured and explicit teaching about the language, but through strategies designed to give him an implicit insight into the working of the language.

- 4 The student teacher as well as the teacher educator must be able to use simplified reference grammar with abundant examples (if necessary an experts committee may develop one such for Indian conditions).
- 5 The goal is to encourage communicative competence in our student teachers.

Orientation of Teacher Educators

The orientation of teacher educators on the following directions will be useful:

- 1 Greater insight into the working of English language.
- 2 Knowledge of more recent techniques which are relevant to Indian conditions.
- 3 Encouragement to seek expert help from RCEs, ELTs, SCERTs.
- 4 The ability to make purposeful use of media.
- 5 Acquaintance with professional literature and journals.

Curriculum Transaction

The teaching of English has been equated with

the teaching of content of the textbooks prescribed and therefore the method of teaching used normally is explication of the content. With the structural syllabus some emphasis was given to introduction of graded sentence patterns and vocabulary items but there is more to the teaching of English. What the language teacher needs more than anything is comprehension of the dynamic strategies of the speaker or the writer. In order to facilitate learning in their pupils, the teachers must understand also the working of autonomous and self-directed learning schemes. Language learning must be linked with other cognitive and sensori-motor skills which the pupils are acquiring and with which they deal with the physical and social environment around them. There should be an integrated approach to curriculum transaction. The student teacher must learn methods and techniques of teaching English as a second language which are both up-to-date and effective. He should be able to combine his knowledge of language and methods with learning activities. He should both experience and understand the dynamics of group work. Part of his training should give him the techniques of evaluation. Above all he must learn how to create a warm, healthy classroom environment conducive to learning and ego enhancement of the pupils.

Integration of ESL with School Curriculum

What changes can be made in the ESL (English as Second Language) and training curriculum in order that the students and teachers can function better in their classrooms? The focus need not be on language per se, not even on communication, for these are means to an end. Language learning should promote a larger cognitive development. But at present students do not get trained in various forms

of reasoning, such as cause and effect leading to sequence or events, underlining the central meaning of an event, making comparisons, identifying relationships, identifying problems and their solutions, drawing conclusions, anticipating events and consequences, defining alternative courses of actions, understanding feelings, experiences and reactions of others from their statements. To sum up, ESL curriculum has to be relevant to the purposes to which the rest of the education is organised. It is therefore important that ESL curriculum should focus on tasks which embody the kind of thinking that the student might be expected to engage in his non-language classes. This will lead the students to generalise linguistic and cognitive skills learnt in language classroom. Such tasks would also prove intrinsically motivating. Only when student teachers are trained in this integrated manner they will be able to use that training in the classroom.

ESL Curriculum Should be Shaped to the Learner

Motivation is a complex drive. For our purposes here, we will oversimplify and equate motivation with self-interest. The ESL curriculum must be based on the learner's interests and creativity. As John Rassias puts it in the "Psychology of Language Learning", the orientation must always be towards the student. The self is thus important. It is the genuine involving factor in study and psychologically we build on it. The student must always relate to what he is doing. Ideally language study should be undertaken for the direct effect it has on the self. It is the route to maturity.

A great deal of what goes on under the name of second language teaching does, in fact, conveniently ignore the lexical items which might interest the

developing student. A blind insistence on the learner's acquisition of a core of basic sentence patterns often leads to educationally limited language programmes. It is necessary to remind the language teachers that while valid language skills may be the primary motive behind learning a second language, they should never allow themselves to subordinate to such immediate aims the long-range objectives of fostering human values. The student teacher must be helped to develop his creativity and interests and the teacher educator must look beyond the usual classroom situation of pen, pencils and books. In practical terms, this will involve permitting the learner to try out new roles in the second language, introducing cultural items characteristic of the societies to which the language belongs, undertaking appropriate digressions whenever interest is aroused, and relating the instruction to current events.

Long term aims by themselves will not be sufficient to provide the content of the whole course for the length of time required for reasonable proficiency. Therefore, each lesson should provide its own motivation. The students have a natural verbal curiosity and an urge for socialization. These can be harnessed to ESL. Where communication is the method of ESL, a considerable part of the learning teaching can be done among the students themselves. All life is communication. We never read out to each other; the student can choose partners and sit together and listen to one another, their own and others' spoken and written exercises providing opportunities for learning and reinforcement. In this way the social nature of language and language learning is used by the ESL teacher. Paired or group work in language class involves imaginative anticipation of playroles in social groups. Each exercise must spring from the circumstances of their own lives and the life around. A learner's active partic-

ipation yields better results than passive reception. The teacher, in turn, becomes a facilitator, calls upon the child's resources and sets a creative pattern into which learner's energies flow. The teacher assists the learners to compile his word lists and compositions but does not set them and does not impose himself. The class, then, acquires a condition akin to that of a magnetic field in which the learning process goes on with minimal direct interference from the teacher. The teacher merely ensures that the proper field is created in his class for effective learning.

In order to implement the new directions in education and to rescue English in India from becoming a pidgin without intellectual and cultural moorings, the content of English language teacher training curriculum at the elementary level, could be organised on the basis of the course outline given on the following pages. Further a checklist is also provided to guide self evaluation of teacher's performance in teaching English as a second language. The course outline gives units as well the modes of transaction. It was felt that since the approach is integrated i.e., content enrichment and methods will be integrated and since the pupil teacher will also start early in the first year on practice teaching, many topics need to be introduced early in the first year

and elaborated in the second year in the context of both elementary school syllabus and appropriate methods.

Each unit may be related to the kind of text books the trainee will be teaching. (Similarly 4 per cent of the practical work will be devoted to language teaching and 4 per cent of the teaching time will be on teaching language). The hours are divided between Hindi and English; these will add up to about 48 hours of practical lesson planning and preparation work and about 48 hours of English language teaching. Since the trainee may not have the necessary mastery over English language skills, some of these hours may be devoted to intensive training in language skills (ITLS). The hours necessary for practical work and for intensive training in language skills are shown against each unit along with transaction hours. ITLS hours can start right from the beginning of the course. There should be periodical tests to determine the strengths and weaknesses of each trainee. ITLS hours may be more in the first year and practical work hours more in the second year. Similarly, further adjustments may be made in each institution. However the success of the programme will depend on both intensive training in language skills and, on practical work.

SYLLABUS

| S.No. Unit | Mode of Transaction | Transaction hours | |
|---|---|-------------------|--------|
| | | 1 Yr. | II Yr. |
| 1. Objectives | | | |
| (a) Specific objectives of TESL as outlined in the school syllabus | Presentation and discussion of the module (to be prepared) | 1 | 1 |
| (b) Problems of teaching the new script | | | |
| (c) Teaching the new spoken structure | | | |
| (d) The context of English in India | ITLS Test | 1 | |
| 2. Problems of teaching English | | | |
| (a) Methods for various aspects of language teaching i.e., listening, reading, speaking and writing skills. | Group discussion, oral report, practical work ITLS Tutorial work related to unit 5 starts here. See Unit 5 | 1 | 1 |
| 3. Techniques and procedures of presentation and class management e.g., | | | |
| (a) Role play, | Demonstration by teacher educator, evaluation by student-teacher P.W. 2 hours | 2 | 2 |
| (b) Use of audio-visual aids | | | |
| (c) Dramatization | | | |
| (d) Group work, etc. | | | |
| 4. Text analysis and lesson planning-relevance to: | Assignment, group discussion, self-evaluation after practice teaching | 2 | 2 |

- (a) Teaching of lexis
- (b) Teaching of grammar
- (c) Teaching of spoken English
- (d) Teaching of composition

| | | | | |
|----|--|---|---|---|
| 5. | Developing listening and comprehension skills as well as | Presentation, pair work, lesson-planning, teaching practice, assignment | 4 | 4 |
| | (a) Spoken response i.e., | | | |
| | (i) aural-oral skills | | | |
| | (ii) articulation | | | |
| | (iii) intonation, stress | | | |
| | (iv) social speech | | | |
| | (b) (i) verbal directions | ITLS 8 hours | | |
| | (ii) response to questions | P.W. 4 hours | | |
| | (iii) developing sentence memory and | | | |
| | (iv) repetition of poems | | | |

| | | | | |
|----|--|---|---|---|
| 6. | Reading skills | | | |
| | A. Intensive in 1st year and | | | |
| | B. Extensive in 2nd year | | | |
| | (a) (i) How to use a reading text | Preparation of teaching aids | 6 | 6 |
| | (ii) Preparation of reading cards | Lesson planning, group work | | |
| | (iii) Flash cards, wall charts | | | |
| | (iv) word recognition and analysis skills | Assignments, class-demonstration | | |
| | (v) How to decode unknown words | Peer group teaching | | |
| | (b) (i) Teaching comprehension of vocabulary and structures introduced in the prescribed texts or in unseen texts. | P.W. 6 hours ITLS tutorial to improve reading skills of the trainee - 12 hours | | |

- (ii) Reading with appropriate speed.
- (iii) Reading with global comprehension i.e., comprehending part-whole and part relationships within the text
- (iv) Relationship of facts
- (v) Arguments and generalizations
- (vi) Reading with understanding, understanding implications
- (vii) Making inferences
- (viii) Comprehending significance of particular details.
- (ix) Evaluation of the text, assessing the argument and distinguishing facts from opinions
- (x) Understanding diagrams and charts, formula and definitions
- (xi) Statements of rules.
- (c) (i) Finding information and citing authority or proof.

-
- B. (i) Plan to build reading habits, build class libraries

| | | | |
|----|---|--|---|
| | (ii) How to motivate children to read by introducing them to self-produced text (see module 28, Inservice Teacher Education Package Elementary) | | |
| 7. | Writing Skills | 8 | 8 |
| | (i) Teaching handwriting and the Roman script | Blackboard demonstration, copying and drills and dialogues as preparatory to writing | |
| | (ii) How to use the blackboard | | |
| | (iii) Writing activities-sentence, paragraph connected sentences and stories | | |
| | (iv) Providing clues and prompt to writing and withdrawing them | Group work, group production of teaching materials, using work sheets | |
| | (v) Types of guided and picture composition | | |
| | (vi) Relating writing to the pupil's experience and environment | Practical work-8 hours | |
| | (vii) Creative activities as suggested by the pupils and stimulated by a class wall paper | ITLS-10 hours | |
| | (viii) Presentation of necessary grammar and vocabulary | | |
| | (ix) Writing should be related to the vocabulary and structural content of books or other texts pupils read | | |
| | (x) How to encourage use of English outside the classroom | | |

| | | | |
|---|--|---|---|
| 8. Evaluation and Remedial work | Presentation, demonstrations lesson planning, try out in practical teaching and peer group teaching | 4 | 4 |
| (a) Innovations in evaluation techniques | Preparing a weekly, monthly and yearly plan of evalua- tion, integration plan for teaching method for each unit and its evaluation-class project. Practical work-8 hours | | |
| (b) How to encourage self- learning and self-correction | | | |
| (ii) How to design self correct- ing exercise | | | |
| (c) How to give dictation | | | |
| (d) How to devise copying exercises | | | |
| (e) How to make up cloze exercises | | | |
| (f) How to teach pupils to edit their writing, correct slips and careless mistakes | | | |
| (g) How to devise check-lists, probes in using evaluation for diagnostic purpose. | | | |
| (h) How to keep a class pro- gress record | | | |
| <hr/> | | | |
| 9. Planning of teaching activities | Demonstration group, groups work, individual projects, class projects, practical work 4 hours | 2 | 2 |
| (a) How to make time budgets and plan class-room activi- ties with each of the skills referred to above. | | | |

- (b) How to make individual plan for students with learning problems and set realistic goals.
- (c) How to ensure time for all units in the syllabus and make revision plans.
- (d) How to keep plans flexible to take advantage of opportunities for learnings.

| | | | | |
|-----|--|---|---|---|
| 10. | Taking care of pupils with special needs to ensure opportunity to learn | Presentation, demonstration, visits to integrated schools | 2 | 2 |
| | (a) Orientation to physical handicaps | | | |
| | (b) Orientation to perceptual handicap. | Practical work 4 hours | | |
| | (c) Orientation to mental retardation | ITLS Test | 1 | |
| | (d) Problems on language learning with sensory and perceptual disability | | | |
| | (e) Problems of learning with mild mental retardation | | | |
| | (f) Serious health and emotional problems and their effects | | | |
| | (g) Class management with integration | | | |
| | (h) Team teaching and using resource centres | | | |
| | (i) Helping pupils with memory problems | | | |

Teaching of Mathematics

The importance of mathematics as a vehicle for logical thinking and reasoning is well recognised. The programme of teacher education should incorporate activities which enable the pupil teacher to attain a high degree of competence in mathematics and its communication to students, especially at the elementary stage.

Competence to introduce concepts effectively, develop computational skills among students, prepare them to pick up further courses in mathematics is necessary for elementary school teachers. Besides, he/she should have the competence to develop interest and confidence among the students in mathematics using motivational techniques and adopting activity based learning teaching. This naturally implies development of a suitable curriculum.

Objectives of Teaching of Mathematics

The objectives of teaching of mathematics for the teacher training programme at the elementary level are to develop the following competencies and skills in the student teacher. He/she should possess competencies to:

- 1 analyse the content in terms of facts, concepts, principles and rules.

- 2 state instructional objectives in terms of specific behavioural outcomes.
- 3 design teaching strategies to develop mathematical knowledge and skills and logical thinking.
- 4 comprehend basic operations and principles of variations.
- 5 prepare, handle and demonstrate low-cost teaching learning materials especially "the abacus", "the geoboard" and the primary mathematics kit.
- 6 design and employ suitable activities for slow and fast learners.
- 7 construct and use suitable tools of evaluation to measure student's learning, diagnose their learning difficulties and improve teaching.
- 8 organise curricular and co-curricular activities such as quizzes, puzzles, study of environment for the appreciation of mathematics, mathematics exhibition through mathematics club.

The teacher trainee should also possess the competencies to guide the students to:

- 1 acquire knowledge and understanding

- of mathematical terms, concepts, principles, processes and computational skills.
- 2 cultivate mathematical thinking to solve day to day problems.
 - 3 think, reason, analyse, synthesise, verify and generalise mathematical problems.
 - 4 develop computational skills.
 - 5 develop interest in mathematics through participation in various mathematical activities.
 - 6 recognise and appreciate the contribution of Indian mathematicians.

ious stages is arranged in spiral fashion. Looking at the importance of mathematics, it should be taught in a very systematic manner following the psychological approaches to teaching-learning.

Mathematics being abstract in nature is generally forgotten and, therefore, to fix up the ideas and to help their retention for a longer period, a large number of problems of different nature relevant to a particular topic and appropriate stage are to be worked out.

Use of abacus, mathematics kit, geoboard and geometry box can help in clarifying many ideas and concepts of arithmetic and geometry. The properties of geometrical figures may be derived through measurement of sides and angles.

Evaluation plays a very significant role in judging the progress of the students and also of the teachers. Therefore, a continuous and comprehensive evaluation must be done to get the feedback using different appropriate tools of evaluation.

Guidelines for Selection of Course Content

Mathematics plays a very significant role in the development of the society and advancement of the technology. It helps in developing logical thinking, abstracting the ideas, analysing the problems and solving them through deductive reasoning. Mathematics is useful in the study of other subjects and for vertical mobility. Therefore, the content for var-

SYLLABUS

First Year

60 Hrs.

UNIT-I Objectives and Place of Mathematics in School Curriculum

3 Hrs.

- (a) Objectives of teaching mathematics at the elementary stage
- (b) Place of mathematics in school curriculum with reference to its utility in daily life
- (c) Relationship of mathematics with other subjects
- (d) Minimum levels of learning after V & VIII standards.

Activity

- 1 The teacher educator will present examples of different objectives.

- 2 Student teachers will write 20 behavioural objectives for different content areas covering all the domains.
- 3 Student teachers will cite different examples from daily life and other subject areas-science, history, civics geography in which the knowledge of mathematics is needed.
- 4 Mathematics as tool for the training of mind to be initiated and elaborated by the teacher educator and may be followed by discussion.
- 5 Student teachers will determine the minimum level of learning after Class V and VIII in different branches of mathematics for pursuing studies in higher classes, giving proper justification.

UNIT II : Methods of Teaching Mathematics

9 Hrs.

- (a) Concept formation in mathematics-Piagetian stages of number development - coordination - ordination - conservation.
- (b) Expository and guided-discovery
- (c) Inductive and deductive approach
- (d) Analytic and synthetic approach
- (e) Problem-solving: meaning and importance of teaching problem solving, stages in problem solving, techniques to improve problem solving skills.
- (f) Play way method.

Activity

Student teachers will be asked to suggest and explain the method chosen for teaching a particular topic.

UNIT III : Content Analysis

4 Hrs.

Content analysis - analysis of mathematical content in terms of the content categories: facts, concepts generalisations and processes, sequencing of the content categories. Stating of the objectives of teaching the content categories. Design strategies of teaching the content categories, Unit planning and lesson planning.

Activity

- 1 The student teacher will select two topics from different branches of mathematics and analyse them.
- 2 Student teacher will select any one topic from the prescribed textbook and

- reorganise it. Justify the need of reorganisation for different groups of children.
- 3 Student teacher will prepare one unit plan and at least five lesson plans on various topics from different branches of mathematics and discuss it with the teacher educator.
 - 4 Lesson plans may be developed following different methods of teaching.

UNIT IV : Number System

4 Hrs.

Number and numerals, digits, natural numbers, whole numbers, place value, four basic operations on numbers, different kinds of numbers such as odd, even, prime, composite, co-primes and twin-primes. L.C.M. and H.C.F. of numbers, integers, rational numbers, irrational numbers and real numbers. Representation of numbers on number line. Numbers with different bases.

Activity

Student teachers will design several activities relating to number system for classroom teaching.

UNIT V : Fractions

4 Hrs.

Proper, improper and mixed fraction, conversion of decimal numbers into proper fractions and vice versa. Four basic operations on fractions and decimals. Percentage, conversion of percentage into fractions and vice versa.

Activity

- 1 The student teachers will identify various steps where the students commit mistakes.
- 2 While solving the problems and detecting the errors, the pupil teacher will plan remedial measures for eliminating mistakes.

UNIT VI : Measurement

4 Hrs.

Different units of measurement such as length, weight, time, currency, temperature, area, volume, capacity and their conversion into smaller and bigger units.

Activity

- 1 The length and breadth of the room, distance to the nearest railway station, the number of bricks required for the room etc. may be estimated.

- 2 Student teacher will measure the length and breadth of exercise book, table, blackboard, classroom, doors and windows and height of ceiling.
- 3 Distance between two points on uneven surface will be measured with the help of a cord or a measuring tape.
- 4 Size of a drop should be measured with the help of pipette.

UNIT VII A : Ratio and Proportion

4 Hrs.

Direct and inverse ratio problems related to the ratio and proportion.

Activity

- 1 Student teachers will collect examples of direct and inverse ratio.
- 2 Student teachers will take problems related to time, work and distance etc.

UNIT VIII : Commercial Arithmetics

16 Hrs.

Profit and loss, discount, simple interest and compound interest, use of tables of interest.

Activity

1. Profit and loss may be calculated by organising stalls in science exhibitions, annual day celebrations or by taking examples from daily life situations.
2. The examples of a festival discount, reduction discount, off-season discount may be given.
3. The student teacher may prepare an exhaustive list of sales discount from daily life situation.
4. The student teacher may use table of interest for computing interest for different rates and different periods.

UNIT IX : Algebraic Expressions

8 Hrs.

Indices and exponents, algebraic expressions, basic operations on algebraic expressions.

UNIT X : Historical development of numbers and geometry, contributions of Arya Bhatt, Braham Gupta, Bhaskaracharya, Ramanujan.

4 Hrs.

Activity

Student teachers may collect materials on Indian mathematicians from books, newspapers, magazines, etc., and prepare an album.

SECOND YEAR 60 Hrs.

UNIT I : Instructional materials 5 Hrs.

Textbooks, teacher's guide, work book, reference books, teaching aids (abacus, geo-board, paper folding, charts, models, extensive use of geometry box, use of mathematics kit etc.)

Activity

- 1 The student teacher will evaluate the prescribed mathematics books for elementary classes.
- 2 The student teachers will be asked to prepare a list of teaching-aids (visuals & models) required to transact the content.
- 3 The student teacher will prepare at least 5 such teaching aids using local resources.

UNIT II : Evaluation 5 Hrs.

Concept of evaluation, continuous comprehensive evaluation, techniques of evaluation, types of tests (essay type and objective type). Construction of different test items. Construction of achievement and diagnostic tests and their use.

Activity

- 1 The student teacher will be asked to prepare different kinds of test items on knowledge, understanding, application and skill.
- 2 The student teacher will prepare an achievement test.
- 3 The student teacher will administer the test and detect the weaknesses of students in mathematics and will suggest remedial measures for the same.
- 4 The student teacher will analyse the data of the test and will interpret the result.

UNIT III : Individual Difference 4 Hrs.

Identification of slow and fast learners, causes of backwardness in mathematics and its remedial measures, slow learners, gifted children and their enrichment programme.

Activity

Supplementary reading material for gifted children will be prepared by the pupil teachers.

UNIT IV : Algebra 8 Hrs.

Sets, operations on sets, simple applications on sets, problems on sets related to L.C.M. and G.C.D. (H.C.F.). Equations in one variable and their graphical representation. Translation of physical situations into mathematical statements and their solution.

UNIT V : Geometry

8 Hrs.

Simple geometrical terms—point, curves, straight line, line segment, ray, angle, perpendicular and parallel lines, triangle, rectangle and parallelogram, square, circle, perimeters, areas, study of solids-cube, cylinder, cone and sphere, their surface area and volume.

UNIT VI : Geometrical Constructions

5 Hrs.

Angle equal to a given angle, bisector of a line segment, bisector of an angle. Parallel lines, perpendicular to angles. Construction of angles with the help of compass 30° , 45° , 60° , 90° , triangles, construction on circles.

UNIT VII : Geometry

5 Hrs.

Concept of congruency, conditions of congruency of two triangles, concept of similarity, conditions of similarity of geometrical figures such as triangle, parallelogram, rectangle, square.

UNIT VIII : Commercial Arithmetic

8 Hrs.

Share, dividend, brokerage, value of share and debentures, general banking problems, use of ready reckoners and calculators.

Activity

Student teachers will collect information regarding shares and debentures from newspapers and other sources.

UNIT IX : Statistics

8 Hrs.

Collection and classification of data, tabulation, graphical representation of data, bar diagram and histogram, mean, median, mode of ungrouped data, standard deviation.

Activity

The teacher educator will collect data from various sources and classify them. After classification, he/she will put the data in tabular form.

UNIT X : Recreational Mathematics

4 Hrs.

Number patterns, geometrical patterns, magic squares, riddles, quizzes, setting of mathematics laboratory/clubs. Using the Railway time-tables. Short cuts in calculations, vedic mathematics.

Activity

The student teacher will collect magic squares, riddles from news papers/magazines. They should put them into a folder or album.

Teaching of Environmental Studies (*Science*)

ENVIRONMENTAL studies (EVS) is not a new subject in our school curriculum. It is rather a new approach and perspective for handling a curricular area which earlier went under such varied names as general knowledge, social studies, general science, nature knowledge/study, citizenship education for the young and such others. Of late, two new perceptions have acquired particular importance. First, there is a growing concern for environment demanding proper awareness about its problems and consequentially of conservation measures. Human being is viewed both as a part of the nature as its organism and its most powerful modifier. In fact, he/she is central to the nature of environment and various scientific facts and laws are to be perceived through his/her experience. Secondly, environment is now being given a much broader meaning which covers both the natural and human aspects and thus points to social origins of environmental configurations. There is a third dimension also which came for emphasis after the mid-century incumbence on disciplinary approach to curriculum transaction even at the early school stage. There is a growing realization that the curriculum areas should interactively

integrate as much and as best as possible. The implications of all such trends should be understood by the teacher at the level of his/her functioning.

The fabric of EVS by its very nature is a network of interactive linkages and accordingly the human being and his/her social and natural environment have to be viewed at such levels of generalities and specificities as may be within the range of visualization of the learner and productively operable for the furtherance of his learning. Since EVS is a subject of study at the primary stage only, the task may have to be viewed without being burdened by disciplinary considerations.

There can be various ways of organising EVS curriculum at the primary stage of which two are common. Under one such approach EVS is divided into two separate curricular sub-sections i.e., social studies, and science, usually referred to as EVS Part I and Part II respectively. However, in the first two standards, i.e., I & II, the holistic character is maintained based on the view that it is little too early to introduce science formally. The young child cannot visualize such a distinction. On the other

hand there are some who consider it worthwhile to postpone this split approach (social studies and science) till the end of class V, i.e., the end of the primary stage. They are of the view that a formalized division would hamper correlated teaching and operation of concepts, field of experience and thus the canvas for learning becoming very limited one at this stage. Under such an approach, the units of study are so identified that content of each unit is homogeneous. The teacher will have to be made aware of merits and limitations of both these approaches, as also of any other variant, if it is so identified in a particular system. The issue is related to the extent of integration of contents of the curriculum.

There are a variety of approaches to laying down expected learning outcomes (ELOs). However, all agree that learning outcomes or objectives as they are popularly called, consist of two basic components—(i) processes and (ii) content. Some prefer to take up the exercise of objectives formulation by first identifying the content domains and analysing them to a desired level of specificity. Then each content item is defined in terms of learning objective i.e., direction and extent of learning outcome by adding, process or processes (competencies) to be realised. There are others who advocate that processes i.e., competencies should be first identified and then relevant content be selected to develop these competencies. Many tend to adopt a mixed approach. The teachers should be aware of all the important approaches and acquire proficiency in laying down objectives at various classes and syllabus-planning levels, e.g., course of study, unit of study and lesson or any other learning activities. However, it is desirable to follow process-based approach to understand the basic conceptual frame-

work of the content related to the environment and scientific phenomenon.

There are two more issues which should oversee any programme of teacher education in EVS. The one pertains to national goals and aspirations to be cultivated through the teaching of EVS, such as democracy, secularism, socialism, scientific temper, etc. The other issue related to local specificness to be reflected in the EVS curriculum.

These considerations will be met through appropriate teaching-learning strategies, techniques and devices including textbooks and other curriculum materials. A teacher education programme should provide for proper awareness of these requirements and development of skills for accomplishing the tasks.

A reference to the existing reality and the nature of changes is necessary. First, the socio-economic changes are sweeping over the country at a fast pace. EVS is the only major area of primary school curriculum which has to reflect them. Secondly, there is always a pressure of newer knowledge and curricular trends, particularly concerning science. There is need to be circumspect in yielding to or resisting these pressures. Both can be damaging. The tendency to accept all trendy ideas without close scrutiny in the light of our actual needs and resources may prove costly. The teacher has to be made aware of these problems by analysing and assessing actual instances. The teacher of EVS has to be particularly wary about such situations, for language and mathematics are not so easily negotiable. Thirdly, the teacher of EVS has to cover a very wide spectrum of content. Not many teachers today find it easy to teach both social sciences including geographic content and science. Teachers have to be guided as to

how they can make up the deficiency and update their knowledge. Fourthly, educational technology is fast growing. Teachers should have necessary awareness and competence to make use of the facilities so offered to him/her. These and many other challenges are faced in formulating and transacting an EVS programme successfully. Thus the teacher preparation effort for EVS is very complex one, requiring a good deal of open-mindedness, flexibility and ingenuity. Moreover, it is desirable that the teacher follows learner centred, activity based and problem solving-oriented teaching-learning strategies. He/she should act more as an activity facilitator, co-investigator, co-learner and a guide to identify the learning resources and not merely as a communicator and disseminator of knowledge related to the environment/science.

In the light of constraints and conditions stated above, a programme of teacher education in environmental studies has been prepared, keeping in view the primary stage course design in which teaching of social studies and science as Part I & II of EVS separately is visualized from class III to V, but in class I & II, EVS is proposed to be taught holistically. However, the course leaves ample scope for adaptation to any other approach to EVS teaching. For instance, in the event EVS being attempted to be taught holistically in classes I to V, the Part I course (social studies) and Part II course (science) can be amalgamated. Many items under instructional objectives, methods of teaching and evaluation are already common. Hence even while teaching courses I and II, as they are, duplication of such efforts may be avoided.

Objectives of Teaching of Environmental Studies

The objectives of teaching of Environmental Studies/Science course at the elementary level should

be to develop scientific knowledge dealing with environment, competencies and skills in the student-teacher so that he/she is able to:

1. *develop* an understanding of the nature of science.
2. *develop* the concept of "Balanced Science for All" and a holistic view of science so as to help the students acquire sound scientific literacy and appreciate social and ethical aspects of science.
3. *analyse* content in terms of concepts, sub-concepts and the relation between them (concept mapping).
4. *plan* suitable activities, *select* appropriate resources, *organise* group activities.
5. *design* teaching strategies aimed at development of science process skills.
6. *design* and employ suitable activities and learning experience to help children with special needs, such as slow/fast learners and physically/mentally handicapped.
7. *design* learner-centred, activity based and problem solving-centred instructional strategies for transacting the environmental studies (primary level) and science (upper primary) syllabi.
8. *improvise, handle* and *demonstrate* low-cost teaching-learning material and use the primary science kit and mini-tool kit as outlined in the scheme of 'Operation Blackboard'.

Curriculum Transaction

Science is not merely a body of facts, a collection of principles and a set of equipment, instruments, machines, tools for measurement; it is a

structured and directed way of asking and answering questions. Pedagogical success does not lie in teaching the pupil the facts of science but in ensuring that these facts are taught in relation to the process/procedure of scientific inquiry. Science, therefore, should be taught as a process of inquiry. A well-taught child will approach human behaviour, social structure and the claims of authority with the same spirit of alert skepticism that he adopts towards scientific theories. Consequently, the child, as a scientifically literate citizen in the making, will realize that science is not memory or magic but rather a disciplined form of intellectual activity about knowing the environment and scientific phenomenon.

Among the techniques of instruction which play an important role in the type of effective curriculum transaction involving activity-based approach, the teacher has to be apt at:

- Planning of activities
- Preparing the students for activities
- Conducting and supervising activities
- Conducting discussions
- Designing activities for evaluating learning customs.

Planning of activities implies that the teacher is equipped suitably to understand the general objectives of the course, the specific objectives of each unit, and plan suitable activities, work out time schedules and material checklists. Though a teacher can perform these tasks, he/she need not do it himself/herself. This task may be delegated to the curriculum framers instead. Using a suitably prepared teacher's handbook, he/she should be expected to perform the teaching task efficiently and without undue strain.

Preparing the students for activity involves introduction of the subject, identification of the problem, evolving a strategy for solving the problem, getting the children and material organised.

Group discussion involves pooling of various ideas (from children), leading a discussion, encouraging and ensuring maximum participation of children, encouraging those children who are shy, lack confidence and are generally non-participative. Restrain on the part of the teacher from monopolizing talk time is an important skill.

In short, activities for teaching/learning may encourage pupils to:

- formulate hypotheses
- ask questions
- experiment with new idea
- stimulate creative thinking
- solve problems.

Activities for evaluating learning outcomes may be organised under the following three broad areas:

- (a) Operational/functional understanding of scientific principles/concepts.
- (b) Competence to solve problems
- (c) Scientific attitudes, interest and appreciations.

Such activities may include teacher's observations, situational problem solving, active participation and hands-on-experiences of the pupils, assignment of project, short quizzes, paper and pencil test and children's performance at work, etc.

Teacher's Role 'Beyond' the Classroom

The principal role of the teacher will essentially be teaching and guidance of the pupils through:

- classroom instruction
- tutorials
- personal contact
- other ways for building the character of the pupils.

The total development of the child, however, requires interventions by the teacher to be aware also of those concerns which are not related to the classroom situations. The teacher has to employ the principles of psychology in understanding the non-scholastic dimensions of the child's needs. He/she has to be apt in providing guidance and counselling after assessing the child's problems.

Guidelines for Formulating Course Content

- (i) Since the elementary stage consists of two sub-stages viz., classes I to V (primary) and classes VI to VIII (upper primary), the course content and methods of its transaction should be designed to suit the learning characteristics of the children which fall in the age group of these two categories.
- (ii) Although the student-teacher catering the elementary teacher education programme may come from two or more streams at the +2 level, viz, the arts, the humanities and the sciences, there exists a need for suitable content-enrichment components in the teacher education curriculum to enable the prospective elementary teacher to transact all the curricular areas at the elementary stage.
- (iii) The student-teacher must be exposed to the concept of environmental studies recommended for the primary stage and should be trained to teach both environmental studies (science) and the integrated science course.
- (iv) "Integrated Science" being a component of

elementary science curriculum, especially at the upper primary stage, its content and methodology should be properly dealt with.

- (v) It may be quite imperative that the student-teachers learn about and practise the inquiry approach. This approach may encourage "the experimental" or the "discovery" approach to establish environmental studies/science as a discipline which lays emphasis on inductive learning.
- (vi) More emphasis should be placed on the student-teacher actually performing the tasks he/she is being trained for. The methods of teaching environmental studies/science used must reflect the methods expected of the prospective teacher in the classroom situations.
- (vii) Activities like exhibitions and field trips should form an integral part of the course content as these help the student teacher in enhancing his/her knowledge base and also his/her appreciation of the relevance of environmental studies/science.
- (viii) The course content in the teaching-learning of environmental studies/science may encourage "inquiry" or "discovery approach". To achieve this, one may discuss nature, scope and structure of science.
- (ix) These above guidelines suggest different roles for the teacher for teaching-learning the environmental studies/science such as, a teacher as an organiser, facilitator, moderator and guide. In these roles, the teacher has to use various teaching-learning strategies such as discussion, group activity, teacher-discussion and group discussion.
- (x) Different approaches to the teaching of environmental studies/science especially relating to child's environment and use of community resour-

ces need to be properly emphasised.

(xi) Evaluation of environmental studies/science education at the elementary level may form an important component of the course outline.

(xii) Various innovative programmes in environmental studies/science education developed in the Indian context should be highlighted.

(xiii) The syllabus in environmental studies/science should provide for alternative content and transactional strategies so that prospective teacher

has flexibility and choice in making curriculum transaction effective.

(xiv) Enrichment activities in environmental studies/science which may help to improve teaching-learning strategies may be provided for in the syllabus at the elementary level.

(xv) The development of scientific temper may have significance in the methods of teaching-learning environmental studies/science at the elementary level in the elementary teacher education curriculum.

SYLLABUS

FIRST YEAR

40 Hrs.

SECTION I

Teaching of Environmental Studies (Science) at the Elementary Level: Basic Principles

UNIT 1 : Nature of Science

6 Hrs.

- Its nature, scope and structure and impact on environment
- The nature of scientific method
- Methods used in generating knowledge of environment
- Social, cultural and ethical aspects of science.

UNIT 2 : Objectives based teaching of EVS (Science) at the Elementary level

6 Hrs.

- Aims and objectives
- Types of objectives
- Statement of objectives in behavioural terms
- Relating objectives with learning outcomes
- Defining minimum levels of learning.

SECTION II : Curriculum transaction

UNIT 1 : (i) Role of Science Teacher

6 Hrs.

- Analysis of content

- Identification of concepts, sub-concepts and concept-mapping
- Writing the objectives in behavioural terms.

(ii) *Science Teacher as an organizer*

- Selection of activities
- Selection of materials
- Organising activities.

(iii) *Science Teacher as activity facilitator*

- Introducing a topic
- Questioning technique
- Conducting group activities
- Teacher-student relations
- Classroom management.

(iv) *Science Teacher as moderator*

- Leading discussions
- Moderating discussions
- Summing up outcome of activities.

(v) *Teacher as guide*

- Helping slow learners
- Peer group learning.

UNIT 2 : (i) Approaches to Science Teaching

- Conceptual approach
- Process approach
- Integrated approach.

(ii) Methods of Science Teaching.

- Child-centred, activity-based teaching-learning
- Problem-solving method.

6 Hrs.

UNIT 3 : The Environmental Studies Course (Science)

- Nature and scope of environmental studies

6 Hrs.

- Abilities to be developed through EVS
- Content and its organisation
- Minimum levels of learning and core components.

UNIT 4 : Use of resources

5 Hrs.

- Outdoor physical facilities
- Low cost learning devices, primary science kit
- Mini tool kit.
- Improvising equipment
- Community resources.

SECTION III : EVALUATION IN EVS (SCIENCE) AT ELEMENTARY LEVEL**UNIT 1 : (a) Role of Evaluation**

5 Hrs.

- Testing conceptual understanding
- Testing process skills
- Testing interests and attitudes.

(b) Mode of Evaluation

- Continuous comprehensive evaluation
- End of unit/session evaluation
- Activities as evaluation techniques.

(c) Construction of Test items

- Short answer type
- Multiple response type
- Testing reasoning ability.

SECOND YEAR

40 Hrs.

SECTION I : TEACHING OF SCIENCE AT THE ELEMENTARY LEVEL**UNIT 1 : Nature of Science**

6 Hrs.

- Nature and scope of science
- Competencies to be developed through science
- Minimum levels of learning and core components.

SECTION II : CURRICULUM TRANSACTION

UNIT 1 : Role of Science Teacher

6 Hrs.

- (i) *Science Teacher as organiser:*
 - Field trips
 - Excursion/visits
 - Science exhibitions
 - Science clubs.
- (ii) *Science Teacher as Activity-facilitator*
 - Secondary sources of information
 - Reporting and communicating information.
- (iii) *Science Teacher as Moderator*
 - Analysis and discussion of activities
 - Hypothesizing, hypothesis testing, setting up experiments, interpretation of results, prediction
 - Summarizing concepts.

UNIT 2 : The Science Enrichment Course Content—An Integrated Approach 6 Hrs.

- Content and organization of the science course at the upper primary level
- Discussion on integrated science course (classes VI-VII).

UNIT 3 : Methods of Teaching Science

6 Hrs.

- Lecture demonstration method
- Use of programmed instruction
- Multimedia packages.

UNIT 4 : Use of Resources

5 Hrs.

- Primary science kit/mini tool kit/integrated science kit
- Educational technology
- Audio visual devices
- Improvising equipment
- Community resources.

SECTION III : EVALUATION IN ELEMENTARY SCIENCE

UNIT 1 : Construction of test items 4 Hrs.

- Knowledge, understanding and application
- Process skill items
- Interests and attitudes.

UNIT 2 : Analysis of Evaluation Data 3 Hrs.

- Analysing student's responses, need and scope
- Feedback to students
- Feedback to teachers
- Formative assessment.

SECTION IV : INNOVATIVE EXPERIENCES IN SCIENCE EDUCATION AT THE ELEMENTARY LEVEL
4 Hrs.

- Nehru science exhibition
- Mobile science units
- Hoshangabad - Ekalavya experience
- Kerala Sastra Sahitya Parishad
- Vikram Sarabhai Community Science Centre
- Any other local experiment
- Some innovative strategies in science education, e.g.; international experiences such as Environmental Studies Project (UNESCO)
- Urban Marginal Project, (UNESCO) NCERT, DESM
- Science museums.

Teaching of Environmental Studies (*Social Studies*)

ENVIRONMENTAL studies (EVS) is not a new subject in our school curriculum, but is rather a new approach and perspective for handling a curricular area which earlier went under such varied names as general knowledge, social studies, general science, nature knowledge/study, citizenship education and such others. Of late, two new perceptions have acquired particular importance. First, there is a growing concern for environment, demanding proper awareness about its problems and consequentially of conservation measures. Man is viewed both as a part of the natural environment as its organism and its most powerful modifier. In fact, he is central to the nature of environment and even various scientific facts and laws are to be perceived through his experience. Secondly environment is now being given a much broader meaning covering both the natural and the human aspects. There is a third dimension also which has begun to assert viz., disciplinary approach to the curriculum even at the early school stage. There is a growing realization that the curriculum areas should interactively integrate as much and as best as possible. The impli-

cations of all such trends should be understood by the teacher at the level of his functioning.

The fabric of EVS by its very nature is a network of interactive linkages and accordingly man and his social and natural environment have to be viewed at such levels of generalities and specificities as may be within the range of visualization of the learner. Since EVS is a subject of study at the primary stage only, the task may have to be viewed without being burdened by disciplinary considerations.

There can be various ways of organizing EVS curriculum at the primary stage of which two are common. Under one such approach EVS is divided into two separate curricular sub sections of social studies and science, usually referred to as EVS Part I and Part II. However, in the first two standards i.e., I & II, the holistic character is maintained based on the view that it is little too early to introduce science and social studies formally. The young child cannot visualize such a distinction. On the other hand, there are some protagonists who consider,

N.B.: The introduction of teaching Environmental Studies (Science) and Environmental Studies (Social Studies) is deliberately the same to highlight the teaching of these subjects through environment.

it worthwhile to postpone this split approach (social studies and science) till the end of class V, i.e., the end of the primary stage. They are of the view that a formalized division would hamper correlated teaching. Under such an approach, the units of study are so identified that content of each unit is homogeneous. The teacher will have to be made aware of merits and limitations of both these approaches, as also of any other variant, if it is so identified or met within a particular system. The issue is related to the extent of integration of content of the curriculum.

There are a variety of approaches to laying down expected learning outcomes (ELOs). However, all agree that outcomes, or objectives as they are popularly called, consist of two basic components - (i) processes and (ii) content. Some prefer to take up the exercise of objectives formulation by first identifying the content domains and analysing them to desired level of specificity. Then each content item is defined in terms of a learning objective i.e., direction and extent of learning by adding process or processes (competencies) to be realized. There are others who advocate that processes i.e., competencies should be first identified and then relevant content be selected to develop these competencies. Many tend to adopt a mixed approach. The teacher should be aware of all the important approaches and acquire proficiency in laying down objectives at various class and syllabus planning levels e.g., course of study unit of study and lesson or any other learning activities.

There are two more issues which should oversee any programme of teacher education in EVS. One pertains to national goals and aspirations to be highlighted through the teaching of EVS, such as democracy, secularism, socialism, national identity

population control environmental pollution sex bias, social barriers scientific temper etc. The other issue relates to local specificness to be reflected in the EVS curriculum.

These considerations will be met through appropriate teaching-learning strategies, techniques and devices, including textbooks and other curriculum materials. A teacher education programme should provide for proper awareness of such requirements and development of skills for accomplishing the tasks.

A reference to the existing reality and the nature of change is necessary. First the socio-economic changes are sweeping over the country at a fast pace. Secondly there is always the pressure of newer knowledge and curricular trends. There is need to be careful yielding to or resisting these pressures. Both can be damaging. The tendency to accept all trendy ideas without close scrutiny against our actual needs and resources may prove costly. The teacher has to be made aware of these problems by analysing and assessing actual instances. Thirdly, the teacher of EVS has to cover a very wide spectrum of content. Not many teachers today find it easy to teach both social sciences including the geographic content and science. Teachers have to be guided as to how they can make up the deficiency and update their knowledge. Fourthly educational technology is growing fast. Teacher should have necessary awareness, combined with competence, to make use of the facilities so offered to him. These and many others are challenges faced in formulating and transacting an EVS programme successfully. Thus the teacher preparation for EVS is a very complex effort, requiring a good deal of open mindedness, flexibility and ingenuity for adaptiveness.

In the light of constraints and conditions stated

above, a programme of teacher education in environmental studies has been prepared keeping in view the primary stage course design in which teaching of social studies and science as Part I and II of EVS is visualized separately from class III to V, but in class I & II, EVS is proposed to be taught holistically. However, the course leaves ample scope for adaptation to any other approach. For instance, in the event of EVS being attempted to be taught holistically to classes I to V, the Part I course (social studies) and Part II course (science) can be amalgamated. Many items under instructional objectives, method of teaching, and evaluation are already common. Hence even while teaching courses I & II, as they are, duplication of such efforts may be avoided.

The course has been outlined under the following heads:

1. Instructional objectives of the course
2. Course content
3. Practicum (practical work)
4. Transactional strategies.

The time allocations have been made for units of study which cover the related items listed under 'Practicum'.

It may again be mentioned that the course, as laid down here, can be adapted to any other suggested approach with minimal effort, though changes in the perspective may materially affect the quality of outcomes.

Guidelines for Course Content Development

The following are some general guidelines for the course content which may be taken into consideration:

1. Social studies is a very vital area of education during the formative years of school education. It is linked with all other areas of education, particularly with science and languages. These linkages should not be missed either in course design or in its teaching.
2. The dynamic nature of social studies demand that its content and learning strategies be flexible so that it can remain in step with societal, national and international changes.
3. Transaction of social studies, by its very nature, demands, among other things, a lot of participatory and interactive group activities. The curriculum developers may emphasise course content assuring group activities.
4. There is a tendency to overload the content in lower classes by incorporating many concepts requiring mature thinking under the misconception that memory activities of early age are symptomatic of real absorption. This may be avoided.
5. At the primary stage, two sub-stages have been recognised - classes I & II and classes III to V. The course content varies so far as teaching of social studies and science is concerned. At class III level, the two aspects separate but with very close linkages between them. Beyond class V, the two aspects become far more specialized and formalised.
6. The content will have two important

considerations: (i) immediate functionality, and (ii) articulation with future learning at the next stage.

7. The content items stated in the curriculum are to be backed by a strong components of practical work. An attempt has been made to provide a list of such activities, but they are to be adapted to the specific circumstances of a teacher education institution.
8. The list of such activities should be comprehensive enough to provide a pupil-teacher enough pre-service experience of what he/she will be required to do on the job.

Objectives of Teaching Environmental Studies

The pupil teacher:

- understands the concept of environmental studies as an area of study in itself and also in the limited context of social studies or social sciences and appreciates the distinction between the two.
- differentiates between the nature of environmental studies at the levels of classes I -II and classes III-V.
- appreciates the place of environmental studies (social studies) in the curriculum at the primary level.
- is conversant with the minimum levels of learning in environmental studies (social studies).
- practises appropriate methods of teaching environmental studies (social studies) emphasising child-centred, experience-based, activity-based and competence-based approaches of teaching.
- acquires skills relating to the preparation of lesson plans, unit plans, project plans and such other instructional plans emerging from the approach adopted.
- develops skills in using community resources in teaching EVS.
- prepares various tools of pupils evaluation in EVS appropriate to particular technique and purpose of evaluation.
- develops practical skills of drawing graphs, charts, time lines, models etc., employed in teaching EVS.
- develops skills in interpreting data presented in various forms such as graphs, maps, tables, charts etc., used in EVS.
- acquires proficiency in organising outdoor activities such as field trips, data or specimen collection, etc., and in-door activities such as role play, dramatisation, debates, mock session of panchayat, simulation activities etc.
- develops proficiency in carrying out various experiments related to EVS.
- senses problems related to social, civic and natural environment.
- exhibits positive outlook towards national ideals, aspirations and concerns.
- takes interests in social, civic and environmental matters.

SYLLABUS

FIRST YEAR

60 Hrs.

UNIT I : Nature of EVS (Social Studies), curriculum organisation and instructional objectives.
10 Hrs.

- (a) Concept of EVS, its main components, such as man, nature, social institutions; interaction among them; relationship with social studies/social sciences and sciences.
- (b) Organisation of curriculum in EVS/social studies - basic considerations e.g., the child, environment, social and national concerns, MLL; different approaches - levels of integration-fused (synthetic) correlated - separate subject based, activity based, experience - based (Examples from EVS); - difference at the two sub-levels of primary school stages (classes I-II and classes III-IV/V)
- (c) Instructional objectives in EVS (social studies)-formulation of instructional objectives in EVS for the primary stage as a whole and for various class levels, unit-wise, lesson-wise, activity-wise.

UNIT II : Instructional Methods and Techniques of EVS/Social Studies

15 Hrs.

- (a) Instructional planning: component of an instructional plan such as overview, objectives (ELOs), content, methodology, evaluation plan, etc., identification of units of study; preparation of unit plan, lesson plan, activity plan, project plan, etc.
- (b) Special methods of teaching EVS e.g., problem solving (every day life situation), project method; participatory experience method; play-way method; cooperative activity method, etc.
- (c) Teaching techniques as applied to EVS.
 - (i) observation
 - (ii) data collection, recording and simple analysis
 - (iii) data representation through graphs, tasks, charts, maps
 - (iv) narration including story device.
 - (v) role playing and dramatisation
 - (vi) field trips and surveys
 - (vii) display and exhibition
 - (viii) simulation techniques such as using sand tray models.

UNIT III : Teaching Aids: Use, Improvisation and Preparation 10 Hrs.

Types of aids used in teaching of EVS (social studies), their classification, procuring, maintenance and storing.

- (i) Maps, their types and reading (map language), preparation of sketch maps of school, locality and other maps; use of map-summary
- (ii) Globe, types of globes including slate globe, use of globe in teaching certain concepts.
- (iii) Charts, posters, cartoons, photographs and such other graphic aids and their use.
- (iv) Models, relief models of the locality, land feature, country etc., preparation and use of diagrams.
- (v) Use of filmstrips, slide-projector, tape-recorder, VCR/VCP.
- (vi) Black-board, sketching skills.
- (vii) Textbooks and workbooks in EVS instructions.
- (viii) Collection of various kinds of specimen and their classification and storing.

Improvisation and preparation of certain aids from those stated above according to the need and circumstances of the school; student participation in improving and preparation of certain aids such as collection of specimen, preparation of models, charts etc., and equipment needed for the purpose.

UNIT IV : Evaluation, Tools and Techniques of EVS 10 Hrs.

- (i) Identification of evaluation techniques suitable for a particular area of content as also learning competency therefrom.
- (ii) Preparation of relevant tools, such as questions, unit tests, question papers, self-evaluation material, observation schedule, interview schedule, checklist for field trips and project work.
- (iii) A simple acquaintance with diagnostic testing, remedial teaching, criterion reference testing and concept of mastery learning.

UNIT V : Content Enrichment 15 Hrs.

- (i) Environmental concerns:
Environmental ecology; pollution; conservation; resources exhaustable, inexhaustable and renewable; wild life preservation.
- (ii) Socio-economic problems:
Nature and types of social change; present problems, such as social disparities, social barriers, gender inequality, illiteracy, poverty, disease,

- population explosion, regional disparities; concept of developed, under-developed and developing regions of the country and the world.
- (iii) National Identity - cultural heritage, composite culture, freedom struggle, national integration.
 - (iv) Civic Affairs and Government:
 - Rights and duties, their complementary nature
 - Salient features of the constitution
 - National goals and aspirations; concept of democracy, secularism and socialism
 - Problems of international peace, co-operation and interdependence
 - (v) Map skills (Map Language):
 - Maps, their types and uses; scale; use of symbols; representation of relief contour-lines; enlargement and reduction of maps; preparation of map summaries.

Practicum

1. An analysis of the existing curriculum of EVS and its evaluation in the context of various approaches to EVS teaching and environmental concerns.
2. Formulation of instructional objectives in EVS for the primary school stage, for each class and for a particular unit of study.
3. Division of the course content of a class into different units with time budgeting.
4. Preparation of a unit plan, lesson plan and a project/activity plan.
5. A socio-economic/geographic survey of a locality such as a village, market place, mohalla, etc.
6. Conducting a field trip, planning and reporting.
7. Recording weather conditions for a month, analysis of the data so recorded and its interpretation.
8. Preparing plan of at least one simulation exercise.
9. Preparation of a few teaching aids, charts, models and improving some items of equipments.
10. Evaluation of a textbook and suggestions for its improvement.
11. Preparation of 50 test items of various forms.
12. Preparation of a unit test and a model question paper.
13. Preparation of an observation schedule.
14. Development of a remedial programme for any one unit of the course.

Strategy for Curriculum Transaction

The curriculum is divided into five units dealing with the theory of methodology and related matters along with a list of items as practicum i.e., practical work. It may be pointed out that without resort to practical work, theory does not become meaningful. Hence both should be integrated. It is with this end in view that no separate time has been budgeted for practicum. It is also visualised that most of the work under practicum will have to be undertaken as assignments i.e., out of class/lecture room work.

Thus the theory course items are not expected to be taught by lectures alone. Group discussions should be held and some seminar activities should be organised.

The product of practical work should suitably be graded. The method master is expected to guide the practical work. Grades should be made known to the pupil teacher with a chance to improve his output within a set time-frame.

The practical work should go hand in hand with teaching of items of theory course.

TEACHING OF SOCIAL SCIENCES AT UPPER PRIMARY STAGE

SECOND YEAR

Social relations, institutions and organisation are very significant area of core curriculum at the school stage. They have both spatial and temporal dimensions, commonly identified as geographic and heritage aspects of education. A rudimentary and non-disciplinary study of social environment is undertaken at the lower primary stage, but it is after it that a formalized and near disciplinary study of social environment is taken up. As part of citizenship education, the importance of such a course of study is quite apparent.

Social Science is a very broad term which covers a wide range of disciplines, but the one whose content lies within the range of easy comprehension of 11+ group are civics, history and geography. There are certain economic issues and activities in which the child at this stage will get interested, but these can be covered under civics and geography. The course content under social sciences thus could mainly be confined to three areas of civics, history and geography.

There can be a number of approaches to organisation of the content under the over-all umbrella of social sciences. As the main subject title pre-empt, the subject identity is subordinate to macro-structure of social sciences. This implies a 'broadfield' curriculum design. In other words, it means that the curricular organisation should facilitate easy and natural correlation between various items of the course content. It may be pointed out that social sciences are not only dynamic by nature, but are interactive in the widest sense of the term. This characteristic should never be missed or even minimised.

As the International Dictionary of Education (RKP) puts it, social studies is the adaptation of social sciences content for being taught at the school stage. There can a number of ways of organising social sciences course at the upper primary stage, but two are generally in vogue. In the first design, the subject boundaries are not retained, but relevant content is taken as topics called 'major idea'. In the second one, the subject identities are retained. The teacher ought to make the trainees aware of these and other varying approaches as and when they gain currency, their merits and limitations.

It may be mentioned that social change and adjustment with it poses a great challenge today. The teacher of social sciences should remain aware of them and should learn how to keep his poise and help his pupils to understand and interact with poise. An education upto +2 stage may not stand him in good stead to function as a well informed teacher. This is a situation which may not ordinarily confront a teacher of science or mathematics because of their nature content. Hence it will be in the fitness of things to provide a content enrichment course to a social sciences teacher covering certain less understood, sensitive concepts and principles in the field of social sciences. There may be some hard areas also which demand a higher level of understanding than one is able to absorb up to +2 stage. The pupil teacher should be guided to seek clarification in these respects too.

There is tendency to follow the easy way of teaching for information in social sciences, neglecting the competencies to be developed and thereby doing irreparable injustice to the basic nature of social sciences learning. Some such competencies are critical thinking, interpretation, decision making and problem solving. Social sciences learning has a strong component of affective domain outcomes. Their neglect would mean defeating the very purpose of including social science in school curriculum. It should be the aim of any teacher education programme to provide for the cultivation of adequate sensitivity and skill in handling value loaded content. The student at the upper primary school stage is matured enough to be exposed to relevant learning experience in this respect but is too pliable to be damaged irreparably, if wrongly handled. Hence a teacher-education programme in social sciences should particularly design participatory activities, practical work and group discussion to orient the perspectives of pupil-teachers in a desirable direction. The task is delicate and deserves close attention.

Objectives

The pupil teacher:

- understands the nature, and the scope of social sciences as a broad field and its main components—history, civics and geography, and the relationship among them.

- formulates the instructional objectives of the subject areas of history, civics and geography.
- prepares instructional plans and evaluation material reflecting the instructional objectives.
- takes recourse to methods of teaching and uses techniques and teaching aids appropriate to the instructional plans.
- acquires skill in improvising and using suitable teaching aids.
- takes decision about proper use of evaluation technique and tool.
- prepares and uses appropriate evaluation tools, and arranges proper feedback mechanism.
- is very careful about correctness and uptodateness of subject content—facts, ideas, concepts, principles, etc., to be taught.

N.B. These instructional objectives are complementary to what has been stated under Environmental Studies (Social Studies) for classes I to V.

Strategies for Curriculum Transaction-Some Suggestions

The paper on methodology of social sciences has been divided into 4 units of study. Advantage has been taken of the fact that some of the items which have found a place here, have already been covered under EVS (Social Studies) course in the previous stage. In spite of this a few items of the previous course can be reflected under practicum as application in different situation and relatively at a higher level.

Needless to say that theory and practical should be intertwined with each other. The practical exercises should be so carefully evaluated as to provide an estimate of absorption of theoretical dimension. It should also be assessed as session's work.

Unit IV is content enrichment. It should not be attempted entirely through classroom teaching. It will be desirable to provide a fairly detailed synopsis along with questions, provoking thinking at appropriate level. Reading and writing assignment should be given with provision for books for consultation in the library. These assignment should be selectively discussed in group, The method master should assess all assignments and grade them.

SYLLABUS

Unit I : Nature & scope of Social Sciences at curriculum organisation and instructional objectives 15 Hrs.

1. Meaning, nature and scope of social sciences; its major components - history, geography and civics.
2. Approaches to curriculum organisation, such as separate subject; integrated and inter-disciplinary approaches.
3. Bases and characteristics of existing curriculum in social sciences at the upper primary stage.
4. Formulation of instructional objectives, coursewise, unitwise and lessonwise.

UNIT II : Teaching Methods, Techniques and Aids 12 Hrs.

1. Instructional planning in social sciences - analysis of content into units of study; preparation of unit plans and lesson plans.
2. Some important methods, specific to social sciences such as source method, project method, map as a method, regional method, problem solving method.
3. Techniques specific to social sciences such as visits to historical places, preparation of weather charts, record maintenance, local studies and work activities, data collection and surveys field trips.
4. Teaching aids specific to social sciences-map, atlas, globe, charts, models, collection of rocks, soils, and other specimen, films and film strips, slides etc.

UNIT III : Pupil Evaluation in Social Sciences 8 Hrs.

1. Evaluation techniques applicable to social sciences - written, oral and practical, process and products evaluations.
2. Preparation of different tests, rating scales and check lists.
3. Procedures for evaluating changes pertaining to affective domain and their limitation under the existing situation.

UNIT IV : Content enrichment 15 Hrs.

1. Plurality and evolution of human culture and civilization with special references to India; types and factors of social changes in historical perspective; freedom struggle in India with special reference to the role of masses, cultural growth in the 19th and 20th centuries in India.

2. Main features of Indian constitution; relationship between union, state and local self-government; problems of international peace and role of media; national security; national integration; some social problems—illiteracy, poverty; neglect of women, caste and religious bigotry.
3. Maps and map-making; use of latitude and longitude, representation of relief on map; rationale behind some of major national regions and concept of regionalisation distance, planned development of India; population problem in India.

Note : The above three sub units in unit IV are compulsory for all. Alternatively, the pupil teacher may offer a content course on any one of the following social sciences—history, geography and civics—subject to the condition that he has not studied that subject at the +2 stage.

CIVICS

UNIT I : Basic Concepts in Civics

- (i) Major concepts - liberty, equality and justice with special reference to Indian conditions.
- (ii) Society, state, nation and government - meaning and their inter-relationship.
- (iii) Forms of Government:
 - Democratic and non-democratic
 - Unitary and federal
 - Parliamentary and presidential

UNIT II : Indian Government

- (i) Indian political system
 - (a) Making of the Constitution
 - (b) Basic features
- (ii) Organs of Government at the Union and State levels
 - (a) Legislature
 - (b) Executive
 - (c) Judiciary
 - (d) Civil Service
- (iii) Institution of local self-government—urban and rural

*UNIT III : Indian Civic Life***Indian democracy**

- (a) Basic features - adult franchise, party system, interest groups, pressure groups, public opinion, etc.
- (b) Socio-economic factors conditioning Indian democracy, inequality - social and economic, regional, separatism, linguism, illiteracy, poverty, unemployment, population growth, problems of scheduled castes and scheduled tribes, status of women, anti-social practices.
- (c) Socio-economic developments in India - planning, role of Planning Commission, rural and urban development, planned economic development.

UNIT IV : International Relationship

- India and the world
- Foreign policy of India: determinants and basic principles
- India's role in non-aligned movement
- India and regional co-operation : SAARC
- World problems, violation of human rights, nuclear arms race, etc. new international economic order, etc.

GEOGRAPHY

The course aims at providing a general understanding of the distinctive physical and human elements of environment which interact to provide a variety of patterns and developing skills relevant to the study of geography.

UNIT I : Physical Geography

The physical environment - the lithosphere; physical phenomenon as a global system, the water cycle as a device for focusing and integration studies in physical geography.

UNIT II : Human Geography

Natural resources - their distribution and utilisation; major economic activities; location, distribution, connections, net-works and patterns in geographical studies; the geographer's approach to development; indicators of development e.g., special demographic, economic and political, demarcation of regions.

UNIT III : People and Environment

Spatial variations in people-environment interaction, human impact on the environment, role of science and technology, types of economic and political systems; degree and types of human impact on environment.

UNIT IV : Skills in Geographical Inquiry

- Observation and collection of information about location (distance and direction), distribution (pattern, density and dispersion), association (movement and change of features) by means of direct as well as indirect (print and non-print resources) conservation.
- Recording data-drawing sketches, diagrams and flow charts; recording measurements from weather instruments, thermometer, raingauge, wind vane, etc., collection of samples/ specimen; preparing statistics in tabular and graphic forms.
- Reporting findings by organising information; using graphics, models, photos, maps, and slidetapes, etc. Using concise expressions in written and oral forms with reference to geographical terminologies and concepts.

HISTORY

This course aims at providing an introduction to the main trends in the history of India. The main topics of this course may be as follows:

UNIT I : Pre-history- Main stages: Emergence of Civilization

Civilization and Culture—the first Indian civilization, civilization of ancient India, major development in political history, social organization and economic life-development of culture (including religion, science, technology)- ethnic composition of Indian population in ancient times.

UNIT II : India in Medieval Times

An outline of political developments - development in social and economic life - developments in culture.

UNIT III : Transition from Medieval to Modern

Main forces and factors in Europe—specific features of the transition to modern period in Indian history - British conquest of India - impact on Indian society and economy.

*UNIT IV : India Struggle for Independence - Main phases and features***Practicum**

10 Hrs.

1. Analysis and evaluation of present school curriculum in social science (history, geography, civics).
2. Planning course content based on an approach other than the existing one.
3. Preparation of unit plan, lesson plan and activity plan according to proper format which should include over-view, instructional objectives, content analysis in terms of major ideas, concepts, principles, terms and facts, etc., teaching learning strategies and evaluation materials.
4. Selecting a theme, preparing a project plan and executing it. Themes could be such as (1) "Geography through shop window" (2) Location of an industry (3) History of the locality, (4) Farming activity throughout the year in an area, (5) A literary survey of a village or mohalla.
5. Conducting a field trip to study a local aspect like a local fair, a market, a movement, a river site, land use in village, etc.
6. Preparation of some teaching aids such as ground model of relief map of India, a set of overlay maps of temperature, rainfall and winds.
7. Preparation of at least one question paper, two units, post lesson evaluation test.
8. Writing essay on at least one topic under unit IV to be discussed in the group meetings.

Teaching of Health and Physical Education

THE National Curriculum for Primary and Secondary Education - A Framework (1988) emphasises that "health and physical education should aim at enabling the child to know that harmonious development of body and mind is essential for good health which include, physical fitness; mental alertness; emotional balance, social productivity and adjustment". Therefore, health and physical education becomes one of the most crucial factors of individual progress and national development. Health and physical education should, therefore, enable an individual to raise his health status as well as that of his family, community and environment.

Health and physical education is an integral part of the total school education. Scientific researches in this area and emerging social needs demand that corresponding changes should be incorporated in the teacher education syllabus at the elementary level so that teachers, in turn, can develop in children desired understanding, habits, skills and positive attitudes. The elementary teacher education should also enable the prospective teacher to imbibe healthy habits, positive values and balanced attitude so that he/she becomes the best example for the young developing minds put under his/her charge.

Objectives

The student teacher should be able to:

- 1 Appreciate the need and importance of health and physical education in the total curriculum.
- 2 Plan, organise and conduct activities and practices relating to children's health, sports and games, etc. directly related to the life-style and environment of children.
- 3 Identify health practices under different areas of health education.
- 4 Practise, demonstrate and supervise skills involved in health practices.
- 5 Arrange facilities for developing health practices with the help of the community and educational functionaries.
- 6 Prepare and select suitable teaching strategies and aids for effective curriculum transaction of health and physical education.
- 7 Identify his/her role and responsibilities in the total school health programme for healthy school environment.
- 8 Observe deviations among children

- from normal health and provide first-aid for minor ailments and refer other cases to parents and health workers.
- 9 Encourage the older students to help, guide and supervise younger children, their siblings at home for developing health practices to raise health status and prevent sickness.
 - 10 Arrange healthy recreation and to inculcate the spirit of sportsmanship.
 - 11 Design and use simple tools to evaluate knowledge, practices and attitudes.
 - 12 Appreciate rich cultural heritage of India in the area of health and physical education, specially in relation to Yoga.
 - 13 Spot out talent in boys and girls and devise means to promote it.

Guidelines for Selection of Course Content

Elementary stage covers the students from I to VIII standards; the age group is 5 + to 13 + years. The duration of the teacher education programme is two years. Five per cent of the total time is allotted to health and physical education. This comes to 120 hours in two years, i.e., 60 hours per year. The course content of health and physical education as a core subject should be so spread that it is equally distributed in both the years.

The pupil teachers who come for training have completed at least 10+2 level and they are expected to have acquired the basic concept of health and physical education as it was their core subject up to X standard.

The syllabus for the teacher education is so devised that it fulfils the physical, mental, social and professional needs of the pupil teacher. The pupil

teachers are to be enabled to handle the allotted syllabus efficiently and effectively.

The various areas which are to be included in the course are health education, physical education, recreational activities and yoga. All these areas may be given reasonable weightage out of the total time available. Care may be taken to ensure that the syllabus remains integrated. The syllabus is formulated in such a way that it is transacted in a playway and activity-oriented method.

Efforts should be made to develop skills and competencies in the pupil teacher to enable him to develop indigenous/improvised teaching aids with the locally available material taking into consideration our rural cultural heritage.

While imparting instructions in yoga to the student teacher, it should be underlined that learning and teaching of yoga should not remain confined to a few asanas only. It should be emphasised that yoga education loses its significance if values like truth, cleanliness, contentment, honesty, non-violence, etc., are not made a part of one's daily life. Yoga teaching therefore requires due emphasis on values contained in *yama* and *niyama*.

Adequate weightage may be given to skill in teaching health and physical education. The evaluation should be continuous, valid and objective.

Equipment and Resources

For the effective transaction of the content, it is suggested that the following resources be made available to the training institution.

Physical Facilities

- (a) Gymnasium hall

- (b) Play field - 2 acres
- (c) Safe drinking water
- (d) Sanitary facilities
- (e) Washing facilities.

Library

Well equipped library having current school books, reference books, curriculum guides and technical journals.

Equipment and Apparatus

- Charts and models on health and physical education and on yoga.
- First-aid outfit.
- Height measuring stand, weighing machine, vision screening charts.
- Rubber, cricket, volley ball, cork balls and footballs.
- Net for various games.
- Musical and band instruments.
- Durries and mattresses.
- Inflator.
- Measuring tape.
- Long ropes for marking, iron pegs and wooden pegs etc.
- Overhead projectors.
- Public Address (PA) system.
- Art material.
- Take-off board.
- High jump stand, cross bars for high jump.
- Sea saw, ladders, slides, swings.
- Round about.
- Whistles, batons for relay races.
- Stop watches, steel measuring tapes.

SYLLABUS

FIRST YEAR

60 Hrs.

UNIT 1 : Health Education

20 Hrs.

A. Concept of Health

- Meaning and scope of health and health education
- Factors influencing health.

1. The student teacher will interview different categories of persons allotted to him/her and will try to find out the concept of health the particular category has. They will discuss the findings and evolve the scientific concept.
2. The teacher educator will divide the class into groups. Each group will be asked to interview one set of people. The teacher educator will collect report and initiate discussion and help the student teacher to reach a conclusion.

B. School health programmes—

- (a) Healthy school environment
- (b) Health instructions
- (c) Health services

Activity

1. The student teacher will develop a proforma to assess the status of school health programme and practices in school, discuss about strength and weaknesses of school health programme on the basis of observation and suggest means to further strengthen it.
2. The teacher educator will help in developing a proforma to assist in school health programme. He will supervise the administration of tool. He will collect information and discuss.

C. Personal Cleanliness

- Importance of personal cleanliness
- Care of different parts of the body

Activity

1. The student teacher will observe general appearance and grooming. He will find out the methods of cleanliness. He will be asked to prepare charts, question box and health wheel on personal cleanliness. All the student teachers will also be required to undergo the physio-medical examination.
2. The teacher educator will provide facilities for observation and physio-medical examination.

D. Environmental Cleanliness: Need, Significance and Management of-

- Safe drinking water.
- Sanitary facilities.
- Heat, light and ventilation.

Activity

1. The student teacher will conduct a community survey and list available sources of safe drinking water, the method of disposal of waste, etc. He will record how to make water safe for drinking. Each 'HOUSE' will be given the respon-

sibility for environmental cleanliness and for maintaining proper light and ventilation in the classroom in rotation. He will take part in activities for celebrations of health days.

2. The teacher educator will divide the class into groups and allot areas to each group for survey, supervise surveys and regulate discussions. He will allot work for the celebration of health days and guide the students for the same.

E. Food and Nutrition

- Nutritive components of food.
- Balanced diet.
- Eating habit.
- Malnutrition and its effects.
- Identification of locally available foods and their nutritive value.

Activity

1. The student teacher will conduct a survey of the market and collect pictures of food items and plan a balanced diet. He will prepare balanced diet chart, another chart for eating, cooking and serving habits in vogue at home, community and social functions. He will collect pictures of various children suffering from various deficiencies and disorders and conduct the survey among pre-school children and interview Anganwadi workers to find out their experiences about cooking and serving foods.
2. The teacher educator will collect report of surveys and regulate discussion. He will also guide the group in preparation of teaching aids/materials on balanced diet and components of foods.

F. Safety Education and First-Aid

- Rules of road.
- Precautions to be observed while walking, handling sharp edged things, electrical gadgets.
- Safety at home and school, safety while playing.
- First aid for drowning, poisoning, burns, shocks, fainting and snake bite.

Activity

1. The student teacher will find out the places prone to accidents at home, school and community. He will classify the places specially for falls, burns, drowning,

bites, poisoning and shocks, etc. He will also identify the type of injury which can occur in each case and suggest first-aid. He will prepare scrap book in this regard. He will also find out the agencies which supply material for safety rules such as fire brigade, traffic police or any N.G.O. or G.O. He will keep the records of the accidents in and around the school and maintain first aid register.

2. The teacher educator will divide the class into groups, each group will be asked to work in the area of home, school or community. He will guide and regulate the discussion and role play. He will also help in identifying N.G.O. and GOs.

UNIT II : Organisation of Recreational Activities

8 Hrs.

- (a) Immitations - of frog, rabbit, butterfly, elephant, dog, lion, aeroplane, train etc.
- (b) Free Play - Simple tag games-chain tag, cat and rat.
- (c) Rhythmics - Simple dancing steps, clapping with rhythm, side steps.
- (d) Tumbling - Rolling-forward and back ward, cart wheel, camel roll.
- (e) Jungle Gym.- Sea saw, ladder, slide, swings, round about, etc. For younger children above activities are considered as motor development activities.

Activity

1. The teacher educator will organise relay races for the pupil teacher like running by imitating the actions of different animals.
2. The teacher educator will divide pupil teacher into different groups and organise competitions in tag games and rhythmic activities.
3. The student teacher will actively take part in relay races and other competitions.

UNIT III : Modern Concept of Physical Education

22 Hrs.

A. Theory

- (a) Meaning, aims and objectives of physical education.
- (b) Classification of physical education activities.
- (c) Organisation of intramurals and extramurals play-days.
- (d) Methods of physical education.
- (e) Measurement and evaluation for
 - (i) Jumps, throws etc
 - (ii) Officiating

Activity for Teacher Educators

The teacher educator will divide the student teachers into two groups and one group performs activities like jumps and throws and the other group will measure and evaluate and vice versa.

For Student Teachers

The student teachers will take part actively in the performance and officiating turn by turn.

B. Practicals

- (a) Set drills - Dumbbells, flag drill, wand drill
- (b) Callisthenics - Physical exercises-tables of at least 6 to 8 exercises
- (c) Drill & Marching - Sawadhan, Vishram, Baie-Dahina piechhe Mur, Tej chal, Dahine Baie chal, quadam tal.
- (d) Lead-up Games - (a) Toy games (b) Keep it up volley ball (c) 21 passes basket ball
- (e) Relay Races - (i) Tunnel ball relay (ii) Arch ball (iii) Horse and rider relay
- (f) Indigenous Game: Kho-kho, kabaddi - tactics and techniques, rules and regulations
- (g) Small area minor games:- (i) Dodge-ball (ii) Dog and bone (iii) King of the road
- (h) Combatives - Hand pull, hand push, toe touch, back to back lift.
- (i) Athletics - (1) Short sprints
 - (i) 20 meters, 50 meters & 100 meters race
 - (ii) Jumps
 - (iii) Throws

(More emphasis should be laid on basic motor skills like running, jumping catching, etc.)

Activity

1. The student teacher will take active part in each activity which teacher educator has demonstrated.
2. The teacher educator will assist the student teachers to prepare a set drill for giving a demonstration on play days.
3. The teacher educator will divide the student teachers into different houses and conduct intramurals competition in lead-up games, marching and relay races.

UNIT IV : Yoga

10 Hrs.

Educational significance of yoga, misconceptions about yoga, a brief description of yam; niyam, asan and pranayam. The theory and practice of following asanas.

A. *Sitting Posture Asanas*

1. Sukhasan
2. Padmasan
3. Vajrasan
4. Shinhasan
5. Shashakasan
6. Supta Vajrasan

B. *Standing posture Asanas*

1. Tadasan
2. Tikonasan
3. Vrikshasan

C. *Lying Posture Asanas*

1. Bhujangasan
2. Makarasan
3. Shavasan

D. *Pranayams*

1. Bhramari
2. Chanting of Pranavs

Activity

1. The student teacher will prepare a chart of the asana performed during each class with its benefits.
2. The student teacher will practise all the asanas and pranayams five times daily, early in the morning.
3. Chanting of pranavs will be done before and after doing asanas in each class.

SECOND YEAR**Unit I : Health Education**

60 Hrs.

A. *Communicable Disease*

- (a) Mode of transmission of communicable diseases
- (b) Symptoms of communicable diseases
- (c) Prevention, measures and control

Activity

- (i) Student teacher will go for community survey to find out commonly occurring diseases in the families, among children, adults and old people, and measures taken for their management.
- (ii) Preparation of charts: how diseases spread and measures to prevent them by highlighting individual's role.
- (iii) Preparation of messages and flash cards on prevention of specific diseases.
- (iv) Role play.
- (v) Symposium on prevention of communicable diseases
- (vi) The teacher educator will divide the student teachers into groups and each group will be asked to interview ten families. Then he will collect, compare and discuss. He will see that every student teacher takes part in various activities

B. Pollution

- (i) Type - air, water, noise
- (ii) Health hazards of different types of pollution .
- (iii) Control of pollution.

Activity

1. The student teacher will observe and list out things which cause different types of pollution. How these can be prevented by individual or community action. Charts will be prepared in concerned area assigned by the teacher educator.

The teacher educator will divide the student teachers into four groups and will allow for observations on observation sheet.

C. Health Habits

Concerning—

- (i) Personal cleanliness
- (ii) Environmental cleanliness
- (iii) Food and nutrition
- (iv) Prevention and control of diseases
- (v) Interpersonal relationship
- (vi) Safety education
- (vii) Child care

Activity

The student teacher will prepare (a), the health code for the institution and practice teaching school, (b) charts, flash cards, checklist on health practices (c) checklist and absence of health practices of children of practice teaching school. This will be used to revise the health code. The teacher educator will help the student teacher to finalise the health code. He will supervise the observation of health practices by student teachers in practice teaching schools.

D. Postures

Importance of rest, sleep and postures, gains of good postures, general postural deformities and remedial measures.

Activity

1. The student teacher will discuss the time table in force and review it, demonstration of right posture, preparation of charts, listing the time of going to bed and getting up. Observation of children and recording deviations from normal health.
2. The teacher educator will provide a copy of time table in force to student-teachers for discussion. He will ask the students to demonstrate, correct them, supervise the posture of trainees throughout their training. He will also help the student teacher to find out the reasons of bad posture and take remedial measures.

E. Primary Health Care Set up and Health Organisations

(a) Primary health centre (b) UNICEF (c) FAO (d) WHO

Activity

1. The student teacher will prepare a chart in primary health care set-up, organisation of WHO Day, World AIDS Day, Anti TB and Environmental Conservation Day.
2. The teacher educator will coordinate the panel discussion. He will brief about objectives and areas of discussion. He will arrange debates, poster and essay competitions, help the pupil teachers in putting up an exhibition and guide them to collect exhibition materials from local agencies.

Unit II : Recreational Activities

8 Hrs.

1. Community singing (two songs)
 - (a) One song of local language
 - (b) one song of any other language
2. Folk dance - any one local or regional folk dance along with the community song
3. Minor games - find the leader, musical chair
Dog and bone, Pittho, Vish - Amrit, Good Morning

Activity

1. The student teacher will actively participate in all recreational activities under the guidance of teacher educator.
2. The student teachers will be asked to present any other songs or dance at the occasion of annual day and other celebrations.
3. The student teachers will prepare charts/albums and collect a number of songs in any languages.
4. The teacher educator will divide the student teachers into different groups and organise competitions.

Unit III : Modern Concept of Physical Education

22 Hrs.

Theory

1. Physical exercises and their benefits in terms of physiological functions.
2. Physical fitness and its components.
3. Organisation of intramurals and extramurals on different days.

Practicals

1. Set drills - hoop drill, lazim, pole drill
2. Drill and Marching - Sammne seloot, Dahine baie ghoom, visarjan
3. Callisthenics - Physical exercises, table of at least 6 to 8 exercises
4. Lead-up games
 - Keep the shuttle up
 - One bounce volley ball
 - Captains ball (basket ball)
 - 5 man foot ball
 - 10 passes tenicoit

5. Team Games— volley ball, foot ball, hockey and badminton-rules and regulations.
6. Athletics - revising first year events
7. Relay race - zig-zag relay race
– Obstacle relay race
– Arch and tunnel ball relay race
8. Marking of courts and fields - kabaddi, kho-kho, volley ball, foot ball, hockey, badminton, field.
9. Marking of tracks

Activity

1. The student teacher will demonstrate any one set drill and marching drill on play days.
2. The teacher educator will divide all the pupil teachers into different houses and the student teachers will take part in intramurals competitions.
3. The student teacher will take active part in planning of intramurals, play days etc.

UNIT IV : Yoga

10 Hrs.

A. Sitting Posture Asana

1. Padmasan
2. Yoga mudra
3. Gomukhasan
4. Pashimotanasan
5. Halasan

B. Lying Posture Asana

1. Sarvangasan
2. Dhanurasan
3. Shalabhasan
4. Pawanmuktasan
5. Shavasana

C. Pranayams (Breathing Exercise)

1. Bhramari
2. Chanting of Pranavas

Activity

1. The teacher educator will demonstrate the whole asana and again demonstrate each part and ask the pupil teacher to follow each part and perform asanas and repeat.
2. He will ask student teachers to prepare charts on 5 asanas.
3. The student teacher will take part actively in the performance of asanas.
4. The student teacher will prepare a chart of the asanas performed during each class along with its benefits.
5. The student teacher should also practise all the asanas and pranayams five times daily early in the morning.
6. Chanting of pranavas will be done before and after doing asanas in each class.

Teaching of Art Education

ONE of the chief concerns of the curriculum at school stage is to facilitate all-round development of an individual. The curriculum will have to be designed and transacted so as to enable the child to discover his talent, realize his potentialities, develop in him productive and social skills and enjoy physical and emotional well being.

In the context of all-round development of the individual, art education should be treated as an integral component of curriculum. Art education has not received adequate attention in school curriculum so far. The aim of art education is to sensitize the learners so that they may develop in them an aesthetic sense, a sense of organisation, a sense of order with regard to his personal appearance, home, school and community. It enables the child to develop in him various skills through use of various tools, instruments and other art materials in process of discovery and exploration as also in the process of discovering space, organisation, colours, forms, lines, texture and movements, dance, sound, music. The arts give an insight into other aspects of life helping people understand themselves and the world in which they live. The arts offer significant opportunities for the development of skills, knowledge, concepts, values and sensitivities with which to

understand the culture of a nation. Through art education we can give the understanding of diverse cultural heritage which we cannot give through any other way.

An art teacher is expected to arrange such environments in the classroom which should help pupils interact with various facets of reality—colours, forms, mass and space, sounds, body movement and movements of objects, etc. Such environments which move the pupils effectively with mental states like curiosity, joy, anguish, anger and wonder, etc., to dispose the pupils to explore these by working out action strategies, choosing media and materials and experimentation for the harmony in these environments.

By and large the teachers for elementary stage of education are those who have completed their senior secondary education (10+2 stage). During this period they have had some experience with fine arts and performing art activities which may not necessarily be sufficient to help them understand how to arrange proper environments in the classroom for interaction of their pupils. Moreover they are already adults and their aesthetic sensibilities have by and large reached an adult stage of realism. Therefore,

they have little appreciation of child's aesthetic sensibilities, and they need to be given some theoretical understanding of the learner's characteristics, both at lower primary as well as upper primary stage.

Objectives

The renewal and re-orientation of school curriculum is a crucial exercise in the context of an important role that education has to play in promoting the egalitarian goals and the development oriented objectives of Indian society. In the process of curriculum development, detailed syllabus, both at the teacher training and school, forms an important link.

While developing the course content for teaching of arts for elementary and secondary teacher education, the thrust will be on the acquisition of the necessary teaching competencies and skills in relation to this particular curriculum area.

Therefore, the objectives of art teacher education should be to develop such competencies and skills in the student-teacher that he/she is able to:

1. Create situations for experiencing sensory stimulation to develop and sharpen the student's senses through keen observation of the environment.
2. Help the student develop a sense of organisation and aesthetic sense in him.
3. Sensitise the student so that he may learn to respond to the beauty in line, colour, forms movement and sound.
4. Help the child discover and identify his own potential, experience the self and relate the same to the surroundings through different modes of expression.
5. Help the child to achieve a balanced growth as a social being in tune with our

own culture.

6. Enable the student to discover his own preferences through exposure to a variety of media and materials.
7. Make the student aware of various art forms available in his own environment or locality.
8. Plan suitable activities and select appropriate resources for the child.
9. Plan activities depending upon the developmental stage the child is passing through.
10. Design suitable activities for special needs of children such as slow learners/mentally retarded/hearing impaired/visually handicapped, orthopaedically handicapped and learning disabled children.
11. Understand the scope of interaction of arts with other school subjects.
12. Understand the concept of continuous evaluation and use it for remedy.
13. Organise various arts displays, field trips, meetings with known artists, dramatics/musicians and dancers.
14. Learn to handle art materials, understanding techniques, creating objects of aesthetic value through free expression, playing simple musical instruments and sound producing objects, movements, mime and simple dance form, singing alone and in groups, listening music are the components through which the set objectives could be achieved.

Guidelines for Formulating Course Content

1. The National Council of Teacher Education (NCTE) has recommended that

the preparation of teachers for the elementary stage of education is to be based on teacher training after the 10+2 stage. Thus the basic academic profile of the student teacher is 12 years of education.

2. Since the elementary stage consists of two substages, viz., classes I to V (primary) and classes VI-VIII (upper primary), the course content should be designed keeping in mind the learning characteristics of the children which fall in the age group of these two categories.
3. Teacher education programmes are programmes for professional preparation of teachers and therefore they should provide for a comprehensive coverage of professional knowledge and understanding and should have a strong functional orientation.
4. The pre-service programmes should be so designed that it would equip the teacher with all the skills leading to self direction through project work, etc.
5. The programme should be flexible so that all the local and regional needs and creative, innovative ideas may be accommodated.
6. The programme should provide for comprehensive and continuous evaluation of the teacher trainee.
7. The curriculum should include field experiences and working with community activities.
8. The activities should be so designed that these meet the requirements of special need children.

Apart from theoretical understanding, the teach-

ers need some training in fine art and performing art activities. For this purpose, the pre-service programmes should be so designed that it would equip the teacher with minimal skills both in fine arts as well as in performing arts. Keeping these in mind, it is suggested that while the theory proportion should have a weightage of around 30 per cent, practical activities may have a weightage of around 70 per cent.

The following activities are suggestive in nature. The suggested activities may be undertaken in the light of time and resources available.

Course Outline for Arts Education

| | |
|------------------------|-----------------------|
| Duration of the course | Two years |
| Total number of hours | 60 (30 hrs. per year) |

| S.No. | Content | No. of Hrs. |
|-------|--|-------------|
| 1. | Need and Nature of Art Education | 6 |
| 2. | Coverage of Art Education: | |
| | (a) Visual Arts | 12 |
| | (b) Performing Arts | 12 |
| 3. | Nature of Creative Art | 4 |
| 4. | Undertaking visual and performing art activities | 10 |
| 5. | Characteristics of Learner | 10 |
| | (a) Scribbling stage | 2-4 |
| | (b) Pre-schematic stages | 4-6 |
| | (c) Schematic stage | 7-9 |
| | (d) Neo-realism stage | 9-11 |
| | (e) Realistic stage | 11+ |
| 6. | Integration of the arts and other subjects | 3 |
| 7. | Evaluation in Arts | 3 |

8. Practical Work in Art Education 90 hrs.
(3 hrs. per week)
- (a) Visual Arts
- (i) Two Dimensional or Pictorial
- (a) Drawing and Painting
- (b) Collage making
- (c) Print making
- (ii) Three dimensional
- (a) Clay modelling and Pottery
- (b) Carving and Sculpture
- (c) Construction (Stables and Mobiles)
- (b) Performing Arts
- (i) Music
- (ii) Dance
- (iii) Creative Drama, Puppetry
- (iv) Group Work.

Suggested Media for Art Activities

1. Two dimensional pictorial experiences: drawing, painting, collage, applique, print making and other techniques in image making and designing.
2. Three dimensional: clay, pottery, construction with a variety of papers, card board and card board boxes and other waste materials, soft wood, soft stone, etc.
3. Performing art experiences: learning rudiments of vocal music, playing simple regional musical instruments, listening music, body movements and facial expression in response to various situations of real and imaginary life experiences.
4. Community singing and dancing.
5. Creative dramatic activities and puppe-

try with improvised techniques.

6. Projects like aesthetic organisation of the physical environment by beautifying the surrounding land i.e., landscaping (including plantation, playing with levels, rock and junk), school museum and murals and other display work. This will also call for community involvement.

A wide variety of media and techniques should be provided at all the stages, more so initially for exploration and experimentation for various permutations and combinations. Indirect and inductive guidance in various art techniques through discovery, exploration, improvisations and experimental methods should be provided. Through these methods, gradual awareness of aesthetic and expressive qualities of various media and techniques should be developed by way of asking question and probing perceptions. Children should be allowed to work together in groups to foster in them the spirit of participation/sharing. All the students should be encouraged to participate in various art activities in one way or the other.

Art Education at the Elementary Stage

The primary objective at this stage is the development through various activities of aesthetic sense in the child and also the development of self through simple, visual and performing arts.

The objectives of art education may be achieved by a number of activities and games like:

- Colour games
- Drawing and painting
- Graphic
- Print making

- Construction play
- Thematic stories
- Clay modelling
- Beautification of surroundings including classroom
- Music
- Movement (Dance, Drama)

At this stage our objective should be to enable the child to discover and identify his own sensibilities and preferences through exposure to a variety of media and materials and to optimise his own capacities in one or more arts. Therefore, the child should be provided with learning experiences of various forms of art—drawing, painting, collage, modelling, music, dance and drama, and creative writing:

1. Study of Indian culture.
2. Study of visual and oral resources and their explorations.
3. Projects leading to creative expression and exhibition of the work in visual and

oral forms.

4. Organise inter-group, inter-school art activities.
5. Study trips, visits to historical places, museums, attending programmes of music, dance and interaction with artists-artistes in the community.
6. Exploration of traditional art forms available in the community and neighbourhood.
7. Organisation of festivals and celebrations of the community of the region.
8. Students may organise exhibitions, displays and aesthetic organisation of physical environment by enhancing the surroundings i.e., landscaping including plantation; developing a school museum and morals with a view to creating awareness of topics like the culture of each state of India, science, community, religion and the arts.

SYLLABUS

| | |
|--|----------------|
| FIRST YEAR | 30 Hrs. |
| UNIT I : Nature and Need for Arts Education | 6 Hrs. |
| — Concept and Meaning of Art Education. | |
| — Objectives of Art Education at Elementary level. | |
| UNIT II : Coverage of Art Education | 24 Hrs. |
| (a) Visual Arts | 12 Hrs. |
| (b) Performing Arts | 12 Hrs. |

A. VISUAL ARTS

(i) *Drawing and Painting*: Drawing from imagination with crayon, chalk, dry brush on different surface, e.g., papers with different textures and colours, chalk board, old newspapers, takhti, slate, etc. Indoor and outdoor pencil sketching of static and moving with objects both natural and man made. Progressively, sketch pen, brush and paint, pen and ink to be introduced.

Crayon resist: Drawing picture or design with wax crayon and applying water colour over it. Water colour painting with wet colours (poster colour etc.) pens, crayon and also its combination to be attempted.

Sub-Unit 2

Printing and Designing

2 Hrs.

(i) Printing (Stamping) with the help of small carved clay blocks, wood blocks plain or carved, cut vegetables and other similar materials and objects, e.g., tree leaves, bottle caps made of cork, wood or tin, key of different designs, buttons and coins, etc. Threads of varied thickness dipped in colours and dressed between two papers, etc., combined use of above.

(ii) Mono-print i.e., making drawing or design by applying or spreading, filling poster colours, printing inks 'on a lass sheet placing paper on image' taking out a print on papers.

(iii) Crumping the paper into a ball, dipping it in colours made a shallow plates for colouring crumpled the surface, unfolding paper ball thus coloured and allowing it to dry. Repeating action of colouring, unfolding and drying to obtain desired image in one or several colours.

(iv) Stenciling on paper cardboard sheet, colour application by spraying or dubbing card board sheet, obtaining its print(s) in various formations.

Collage making

2 Hrs.

(i) Paper collage by tearing, cutting and pasting of various kinds of coloured papers, magazine, picture prints etc., on a paper selected as background. Mixed collage: Composing pictures on paper by introducing textured materials such as cloth pieces, thin buttons, threads and strings etc., along with a variety of coloured papers.

(ii) Applied designing

(a) Designing of personal books and note book cover, book marks, greeting cards etc., to be made by the techniques learnt.

(b) Free handwriting and calligraphy to be practiced by use of ink and different pen nibs.

Three dimensional (making shapes and form with clay) 2 Hrs.

2 Hrs.

Rendering simple forms based on nature and man-made objects and carving designs on them in low-relief. At this stage the work should have a limit of one or two forms of figures.

(ii) Hand pottery by pressing coil and slab methods.

(iii) Carving out patterns, designs, simple forms from clay, plaster of paris.

Construction 2 Hrs.

(i) Mobiles: Collecting throw away material or scraps e.g., empty small cardboard boxes, cloth cuttings, wood and bamboo cutting or strips, worn-out toys and discarded games materials, sea shells, coconut and other nut-shells and many other similar items.

(ii) Masks and Puppets: Masks puppets to be made from wornout socks, paper bags and card sheets, toys and decorated with other art work.

Group Activities 2 Hrs.

(a) Organising bulletin board with news items related to art and culture and student's periodical and sessional work.

(b) Participating in study trips to botanical gardens, zoological gardens, art exhibitions, live performances of music, dance, drama, work places of traditional artists, craftsmen for greater awareness of the environment and cultural variations.

B. PERFORMING ARTS 2 Hrs.

1. MUSIC

(a) Knowledge of seven notes.

— Knowledge of Raga, Tala, Swara.

— To translate popular songs into solfa (sargam)

(b) To sing lullabies in a few languages, folk songs, festival songs, patriotic songs.

- Initiating children through involvement in activities such as simple rhythmic, clappings and body movements.
- To induce the children, who lack the abilities to react naturally to musical activities by giving them opportunities to observe and participate.
- To induce responses among children to birds' calls, sounds of animals, familiar domestic activities and other environmental sounds.
- To compose simple tunes to accompany the use of play things such as rocking horses, toy cars etc. according to their rhythmic movements.
- To create simple tunes to one's own poetry or poems produced by other poets.
- Identifying common and popular musical instruments like Dholak, Harmonium, Tabla, Veena, Sitar etc.
- Awareness of the two systems of Indian classical music, Hindustani and Karnatak music.

2. CREATIVE DRAMA

Activities: (Rhythmic movement and mime, with speech music and rhythm) 1 Hr.

- (i) Sport, recreation and outdoor interests like swimming, boating, running, playing games, camping etc.
- (ii) Adventures and educational trips as an explorer and as a mountaineer, etc.
- (iii) Celebrating different festivals and various activities like kite flying etc.
- (iv) Meeting people of eminence in the field of art, drama, music and dance.

Acting 1 Hr.

Acting people in different occupations such as doctor, shopkeeper, driver, postman etc. Imitating action of birds and animals. Acting people in situation—pair work such as teacher and student, doctor and patient, mother and child, policeman and thief, customer and shopkeeper etc.

Improvisation 1 Hr.

- (i) Stories - Act out in greater depth and detail selected stories suitable for age group including scenes from the classics, adventure stories and stories from Panchtantra, etc.
- (ii) Project in social studies - how people live in different climates, have different manners and customs, traditions, ritual etc.

MOVEMENT (DANCE)

- Warming up physical exercises.

- Various types of movements like walking across the room, old man/woman walking, soldier walking, a blind person walking, etc.
- Walking in patterns in a given space (in single and groups).
- Marching in rhythm.
- Exploring and expressing movements found in nature such as fish swimming, swinging tree, deer running, horse galloping, bird flying, falling leaf, flowing river, ocean waves.

1 Hr.

(b) Rhythmic movements along with music to be incorporated in activities suggested earlier.

1 Hr.

(c) Knowledge and awareness of six classical dance forms of India - Bharatnatyam, Kuchipudi, Odissi, Manipuri, Kathak and Kathakali.

1 Hr.

- Learning minimum two folk dances of the region.

GROUP WORK

Second Year

30 Hrs.

- Presenting a performance involving music, dance and drama selected, written, edited, and directed by student teacher himself independently.

Unit I : Nature of Arts

4 Hrs.

- Fine arts and society.
- Link with culture.
- Competencies to be developed through creative arts.
- Self-expression through various media.

Unit II : Undertaking visual and performing art activities

10 Hrs.

- Making a drawing, painting, graphic, print, claywork or pottery and construction on a given topic (a village scene, forest, school, hospital, wedding, a festival, zoo, post-office etc.) or free expression.
- Craft work such as paper cutting and folding, bamboo and cane work, weaving and such other local crafts.
- Preparing teaching aids such as poster, chart, diagram, illustration, etc.
- Organising demonstrations by local craftsmen and performing artistes.
- Visits to places of cultural importance.

Unit III : Characteristics of learner

10 Hrs.

- The idea, medium and technique chosen for expression and skill employed.
- Preference of the learner with regard to medium of expression.
- Children with special need.

Unit IV : Integration among the arts and other subjects

3 Hrs.

- Community work.
- Creative drama and puppetry.
- Environmental studies and the art and crafts in the study of history and geography.
- Music/dance and mathematics.

Unit V : Evaluation in Arts

3 Hrs.

- Approach to art evaluation - appreciation of the work executed, performed in different medium.
- Aspects of evaluation, how, what.
- Continuous and comprehensive evaluation.

Teaching of Work Experience

THE National Policy on Education (1986) reiterated the concept of socially useful productive work and renamed it as Work Experience (WE). In this context it laid down the following as policy statement:

"Work experience, viewed as purposive and meaningful manual work, organised as an integral part of the learning process and resulting in either goods or services useful to the community, is considered as an essential component at all stages of education, to be provided through well-structured and graded programmes".

Keeping in view the importance of the area, the NCERT document, National Curriculum for Primary and Secondary Education — A Framework with regard to the teacher's role in implementing the WE curriculum in school has stated:

"Although it is expected that all teachers should work as work experience teachers, a large number of activities may require specialised personnel. The involvement of all teachers in this programme would logically imply their proper orientation and training in this area". Work experience, a part of the core curriculum at the school stage, should therefore find an important place in the core areas of pre-service teacher education.

Rationale

"Work experience" has by and large been a component of pre-service teacher education. In view of the above stipulation of the National curriculum that all teachers should teach WE, it is very essential that the teachers acquire enough competence for planning, organising, performing and evaluating WE laid down for school children.

The prospective teacher is therefore expected to have the requisite knowledge and understanding about the subject along with necessary skills to perform WE activities, at the same time exhibiting positive attitude towards the subject.

Objectives

The work experience programme in an elementary teacher education situation is to be viewed at two levels: the level of the teacher training institute and the school level. Although the student teacher is to be prepared ultimately for teaching work experience in school, he is also to be trained as willing, efficient and knowledgeable worker himself. Unless he develops positive attitude towards manual and productive work and necessary skills for undertaking the same, he will not be able to teach them to

the school children. Also a purposive, meaningful and interesting programme of work experience is needed which suits the cognitive and psychomotor level of the teacher trainee, his age and maturity. Hence imparting much higher knowledge and skills to the teachers is needed. The teacher should, therefore, be helped to develop an understanding, skills and abilities which will help him in performing his duties. The objectives of this course may be summed up as following:

Knowledge

The prospective teacher

- Should be able to acquaint knowledge regarding need, concept and philosophy of work experience and its curriculum at elementary school stage.
- Is to be acquainted with his own role in imparting the work experience programme.
- Is able to apply pedagogical principles while teaching work experience.
- Should be able to relate knowledge of other subjects while teaching work experience.
- Has the knowledge of productive activities in the community.
- Has the understanding of the technical and social aspects of work situations in the environment.
- Develop awareness of pupil's needs and problems and that of the community as well.
- Understands the process of planning and organising WE.

Skills

The prospective teacher should have the:

- Skill for productive work by manipulation of raw material and tools.
- Ability for solving the day to day problems in a scientific way.
- Skill to prepare instructional material.
- Skill to demonstrate the processes involved in work experience activities.
- Ability to identify the work experience activities for the children.
- Ability to interact with the community.
- Skills for the selection, procurement, storage and use of tools and materials for different activities.
- Skills for preparing the annual plan of work experience, their management in terms of time, space and marking.
- Skills in preparing the budget for work experience and maintain accounts.
- Skills for teaching the subject of work experience.
- Ability towards innovation and action research.

Attitude

The prospective teacher should have the:

- Spirit of cooperation, team work, tolerance, sympathy and for productive efficiency.
- Positive attitude towards self-reliance.
- Good work habits.
- Deeper concern for the environment and a sense of belongingness, responsibility and commitment to the society.

SYLLABUS

FIRST YEAR

60 Hrs.

UNIT I : Concept, need and importance of work experience at elementary school stage.

UNIT II : (a) Aims and objectives of work experience at the elementary school stage.

(b) Minimum learning outcomes of work experience.

UNIT III : Different Areas of Work Experience, types of work experience activities, criteria and base for the selection of activities and suggested work experience activities at elementary school stage.

UNIT IV : Planning and Organisation of Work Experience.

- (a) Annual plan, monthly plan, weekly plan and daily timetable.
- (b) Timing, place, grouping of students.
- (c) Tool and equipment planning.
- (d) Financial and administrative aspects of planning.
- (e) Sale of work experience products.

SECOND YEAR

60 Hrs.

UNIT I : *Methodology of Teaching work experience*

Integrated approach, problem solving, experimentation, observation, demonstration, visits and project method. Lesson planning in work experience.

UNIT II : *Involvement of community in work experience programme and use of community resources.*

UNIT III : *Evaluation of pupils in the area of work experience*

- Continuous comprehensive evaluation.
- Weightage to different learning outcomes.
- Process and product evaluation.
- Tools and techniques of evaluation.
- Internal and external evaluation.
- Marking/grading system.

*UNIT IV : Role of the teacher in work experience***Suggested Essential WE Activities**

No doubt that the actual selection of activities and projects depends upon the availability of natural, physical and human resources in the locality and the socio economic background of the particular institution. However, a great deal of commonality is possible in some work experience activities which need to be performed by all pupil-teachers as they help in the formation of desirable attitudes. Moreover they are life skills and will help in solving their day to day problems.

Following is the list of essential activities:

- (i) Ensuring/making supply of clean drinking water and its arrangement.
- (ii) Looking after environmental sanitation programmes such as removal of garbage, digging of drains and weeding of unwanted vegetation.
- (iii) First aid for cuts and wounds, muscular or bone injuries.
- (iv) Preparation and distribution of nutritious (daliya, poha, upma, etc.) mid-day meal in schools.
- (v) Washing, repairing, drying and storing of different types of clothes.
- (vi) Cleaning the classroom and the institution including the garden, playground, etc.
- (vii) Maintenance of the institutional building, playground, water and electrical fittings.
- (viii) Decoration of the institution on special occasion and otherwise for routine throughout the year.
- (ix) Tree plantation and identification of trees in the vicinity.
- (x) Community services: Looking after sanitary disposal, helping the adult literacy/universalization of elementary education programme, road repair, helping voluntary organisation in their work. All these services need minimum facilities which shall be provided for their implementation.

Suggested Elective Activities

The skills and competencies acquired by the teacher trainee under elective activities will preferably be used by them while dealing the work experience at upper primary stage. The programme of elective activities is aimed at the learning and mastery of work skills and habits by the pupil teachers.

The activities may be put in such a sequence that they assume the form of a project to be completed over a given span of time ranging between one to two years.

Keeping in view the available resources in the teacher training institution and of the community, the institution can prepare its own list of activities. A pupil teacher may be advised to choose any two activities keeping in view his own interest and his area of specialization at +2 stage. Following is the suggested list of activities:

- (i) Garment making-spinning, weaving, cutting and stitching.
- (ii) Making card board boxes, envelopes wedding and greeting cards and other utility items.
- (iii) Cookery skills (to be specified at local level).
- (iv) Doll making (to be specified at local level).
- (v) Food preservation (to be specified at local level).
- (vi) Repair of simple domestic appliances.
- (vii) Preparation of stationery items and book binding.
- (viii) Projects related to conservation of energy (sun, wind and tide, etc.).
- (ix) Plumbing.
- (x) Preparation of certain useful items like detergents, shampoos, phenyl, chalk, candle, etc.
- (xi) Raising ornamental plants in pots.
- (xii) Growing medicinal plants.
- (xiii) Kitchen gardening.
- (xiv) Preparing plants through vegetative propagation.
- (xv) Running a book bank.
- (xvi) Cooperative management of institutional canteen.
- (xvii) Reception work in the institution.

Teaching-learning Process

The teaching-learning process in WE has three phases, study of the world of work through observation and inquiry, experimentation with materials, tools and preparation for actual participation in productive work and services, and the third may lead to production. During the work practice for production activities, demonstration practice, reinforced feedback and repractice should continue till the pupil teacher gets mastery in the work skill.

In order to realise the educational objectives of WE, it is necessary to follow the problem solving approach. Pupil teachers should be made aware of the problems related to their needs and the work that should be undertaken to satisfy those needs. They should be led to arrive at the solution of these problems by discussing the material, tools and techniques of performing work and services and by undertaking appropriate work.

WE should not be performed mechanically and must include planning, analysis and detailed preparation at every stage so that it is educational in character. Improved tools and modern techniques should be adopted in the performance of WE activities so that it leads to the understanding of a progressive society based on technology.

Evaluation Criteria

The entire evaluation in the area of WE should be a continuous process. The evaluation of WE activities should be both internal as well as external. In the internal evaluation, the teacher educator should record the performance of the prospective teacher on his performance report. In the evaluation of student-teacher's performance, paramount importance should be given to attitudinal and skill development.

It should be remembered that WE is predominantly a "doing" subject and therefore actual work experience should receive maximum attention there. In the attitudinal development, factors like dignity of labour, respect for work and workers, social commitment, discipline and co-operation should be taken care of. While evaluating the skill part of the student teacher, factors such as selection of material, tools, proper use of tools, techniques adopted, accuracy and finish should be taken into consideration. During social services activities, factors like democratic attitude, leadership, participation in the group activities, organisation of work, etc., should be judged. Weightage in terms of marks can be suggested in the following way:

| | |
|-------------------------------|-----------|
| Total marks allotted to WE | 100 marks |
| Theory | 30 marks |
| Work practice | 70 marks |
| In the work practice portion: | |
| Internal assessment | 35 marks |
| External assessment | 35 marks |

For internal assessment, a well-designed plan of continuous comprehensive evaluation using worthwhile evaluative criteria should be prepared. The prospective teachers should be asked to write a detailed report of the activities completed and preserve the finished product if it is non-perishable. Assessment may be made and recorded after every operational stage of activity/project. Teacher trainees' self evaluation records should also be maintained.

Guidelines for formulation/adoption of curriculum

School curriculum has undergone several changes during the recent past, so is true of work experience. The NPE (1986) has emphasised the need for restructuring the pre-service teacher education curriculum at all stages. It has considered WE as an integral part of the school curriculum and accorded to it the status of an independent subject. WE is in many ways different from other academic subjects and therefore needs an innovative treatment for the development of its curriculum which should result into qualitative transformation of the various structures of teacher education. Keeping this in view, the following guidelines are suggested for formulation or adaptation of the curriculum in WE or for its implementation at elementary teacher education level.

Planning

Planning for the work experience programme at the elementary teacher education level should be a decentralized process. The content of WE programme is to be based on the needs of the pupil teachers on one hand and the resources available in the institution on the other hand. Since these will differ from place to place, no fixed programme can be prescribed for all the institutions in an area.

The model syllabus developed by the university/state should be elaborated into detailed syllabus at local levels.

Selection of Activities

The activities selected for elementary school teacher training course are based on activities of primary and upper primary level WE.

The content at the primary stage emphasizes the following components: environmental studies and application, experimentation with material, tools and techniques and work practice. At the upper primary, the content consists of two parts i.e., essential activities for satisfaction of day to day living, needs of children, their families and the community and an elective programme of productive work and services, repeated practice of which would lead to some remuneration in cash or kind. The component of work practice is very important specially for the elective programme of productive work and services to the particular community.

Essential or core activities which are suitable for primary classes have emerged out from six need areas namely health and hygiene, food, shelter, clothing, aesthetic and recreation and social service. But, as after sixth standard, skill development occupies more prominent position, every teacher should be trained in two activities depending on their back-

ground at +2 stage, e.g., a science student can be trained in science-based activities or the commerce student can be trained in commerce-based activities.

Allocation of Time

Five per cent of the time is allotted to this paper in the elementary teacher education programme. This comes out to be 60 hours per year. It is suggested that 15 hours per year may be given to theory courses and rest of the time for practicals and teaching practice in WE.

Use of Community Resources

Prospective teachers should be able to involve the community effectively. They should have the knowledge of the available community resources. During pre-service teacher education programme, this type of activities will have to be chosen to impart them the real experience of the society. Therefore, the pupil teacher should perform many work experience activities in the community itself.

Theory Course

Keeping in view the nature of the course and the background of the students entering the pre-service teacher education institutions, it is very necessary that the theoretical course in the area of work experience be introduced. Through the knowledge and understanding of the areas, the prospective teachers will be made aware of importance of the subject and it will help in effective implementation of WE programme at school stage.

Practice Teaching in the Area of WE

The WE component of the teacher education will remain incomplete without practice teaching in this area because all the teaching learning pertaining to this area is geared to the application of pedagogical principles during class teaching. Therefore, the student teacher should be provided with the opportunity of applying these principles in classroom practice teaching under the supervision of their teacher educators.

Preparation of lesson plans, procurement of raw material, tools and teaching aids, practising various skills in stimulated situation, observation of model lesson delivered by teacher educator, etc., are the essentials of pre-practice teaching preparation. The essentials of teaching practice are preparing the learner for practical work, demonstrating the new processes, supervising the work of learners, guiding them and evaluating their process and the product of their work. The post-practice teaching follow-up will include self-evaluation by the student teachers and discussion on the evaluation done by supervisors.

Specific Points for Implementation

- (i) There is need to provide a definite structure for WE in the teachers training institution. Physical, human and financial facilities should be provided for its successful implementation. Also there should be a provision for the part time personnel in the specialized areas and the teacher educators should also be oriented.
- (ii) The WE subject is not to be considered in isolation for its successful implementation. It has to be a joint work with training institution and community. Camp for five to seven days may be organised which will help in the intensive training in the area of WE for pupil teachers.
- (iii) Due weightage be given to this subject in the scheme of evaluation in the total teacher training programme.
- (iv) Development of instructional material: the problem solving approach and the integration of knowledge relating to different subject areas with WE demands a new type of instructional material for the guidance of the teacher educators. Teachers handbooks and source book on activities of projects are necessary. The instructional material may be developed according to the needs of the programme of that area.

Additional Specialization

Multigrade Teaching

THERE are a large number of sparsely populated habitations in India where the population size is less than 1000 persons. The child population in age-group 6-11 years is around 15 per cent of the total population. Keeping in view the teacher pupil ratio norm, which is around 1:40 in the country, the primary schools with pupils up to 100 are provided only two to three teachers. In many case, there are one and two teacher schools. Therefore, a large number of teachers have to practise multigrade teaching as a teacher has to teach two or more grades simultaneously.

Multigrade teaching situations have their own problems such as: scarcity of teaching-learning resources; shortage of time with the teacher; the heterogeneity of grade and ability levels of pupils sitting in the same classroom; classroom organisation; space and time management. Many components in the multigrade teaching contexts would be different to a normal primary school teaching situation. This paper has been developed to provide knowledge and skills to trainees in Multigrade Teaching.

Objectives

General Objectives

The pupil teachers will be able:

- to understand the concept, scope and dimensions of multigrade teaching.
- to analyse teaching learning conditions in multigrade teaching school situation.
- to develop and use methodologies of multigrade teaching and classroom management.
- to prepare and use self-study materials and low cost teaching-learning aids.

Specific Objectives

The pupil teacher will be able:

- to understand the need of systematising multigrade teaching.
- to identify learning difficulties and other problems in multigrade teaching situations.
- to develop competence in the transaction of curriculum and methodology to be used in multigrade teaching school situations.

— to understand inter-personal skills for developing close rapport with learners, their parents and local communities.

— to develop a positive outlook for working in sparsely populated habitations.

SYLLABUS

FIRST YEAR

| Unit | Topic | Methodology | Time-allocation : 40 Hrs. | | |
|------|--|---|---------------------------|----|----|
| | | | Theory | FW | PW |
| I. | Introduction to Multigrade Teaching Concept, need and importance | Lectures, discussions, visit to multigrade teaching schools | 2 | 2 | - |
| II. | Demographic Survey of a Small Habitation Study of literacy rate, number of enrolled and non-enrolled children; children studying in non-formal education centres, number of children in the different grades, grade combination with a teacher. Observance of classroom teaching in multigrade school situation. | Field work, tutorials, seminars and observation. | 2 | 3 | 2 |
| III. | Learning Problems and Other Difficulties faced by Teacher and Pupils Teaching conditions in multigrade teaching situations | | | | |

**Note: Theory implies instructional work, FW stands for Field Work, PW stands for Practical Work, Time allocation is in terms of instructional hours.*

| | | | | | |
|------------|---|---|---|---|---|
| | <ul style="list-style-type: none"> — Learning problems faced by children — Heavy load of work and psychological isolation faced by teachers — Problems in curriculum transaction — Social constraints in and around the school | Survey, discussions and lectures | 3 | 2 | 3 |
| IV. | Methodological Aspects of Teaching in Multigrade School Situations | | | | |
| | <ul style="list-style-type: none"> — Classroom management skills — Direct and summary teaching, self-study. — Monitorial assistance, peer tutoring, collective teaching, outdoor activities. Mobilisation and utilisation of community resources. — Organisation of teaching-learning activities. | Lectures, group discussions, simulation, visual and other aids. | 3 | 2 | 2 |
| V. | Development of Teaching-aids for Teaching in Multigrade Primary Schools | | | | |
| | <ul style="list-style-type: none"> — Self made teaching aids — Low cost learning aids — Peer-tutor teaching aids — Improvised learning aids — Use of O.B. kits — Seeking community's participation | Individual/group work, collection of material for improving aids. | 2 | 3 | 5 |

| | | | | | |
|--------------------|--|---|----|----|----|
| VI. | Evaluation in Multigrade Teaching Situations | Lectures, practical work, preparation of test items on diagnostic techniques. | 2 | 1 | 1 |
| | — Basic principles of evaluation techniques. — Methods/approaches to be used in pupil evaluation in the context of multigrade teaching. | | | | |
| | | Total hours | 14 | 13 | 13 |
| SECOND YEAR | | | | | |
| 1. | Management Strategies: | | | | |
| | Time management, space management, resource management | Lectures, simulation teaching exercises | 3 | - | 5 |
| 2. | Assignment and Practical Work | Practical work | 3 | 2 | 5 |
| | — Simulation for multigrade teaching. — Preparation of exemplar lesson plans for multigrade teaching. — Planning of time, space and resources. — Development of aids and material for self-learning, peer group situations. | | | | |
| 3. | Planning Lessons for Actual Classroom Teaching Situations | Internship Methodology | 4 | 3 | 15 |

4. Classroom Teaching

- simulation in multigrade teaching situations
- Teaching of mathematics, environmental studies, languages, art and health education.

(Note: In the practice teaching, use of teaching aids and methodologies would be taken care of)

Total Hours

10 5 25
= 40 Hrs.

Scheme of Evaluation

The scheme of continuous comprehensive evaluation will be used to evaluate the achievements of teacher trainees. Evaluation will be of 100 marks. The distribution of marks will be as follows:

| | | |
|---------------|-----------------------|-------------------|
| <i>Theory</i> | <i>Practical work</i> | <i>Field work</i> |
| 50 marks | 25 marks | 25 marks |

The achievement of teacher trainees in the theoretical part will be evaluated by question papers set externally. Practical work will include assignments related to theoretical topics, and field work will be evaluated internally. Internal evaluation will be continuous and comprehensive in nature.

Guidelines for Teacher Educators

The paper on multigrade teaching is a process-based paper. The emphasis is to be on developing

skills in the handling of heterogenous ability groups. The teacher trainees should be exposed to the physical set-up of a multigrade teaching situation by actually taking them to one or two multigrade teaching schools. The trainees may be led to prepare checklists/inventories/profiles on classroom management practice, pupils participation in classwork, teachers' attentiveness to different grade pupils; rotational teaching; organisation of co-curricular programmes; parent teacher relationship, etc. The teacher educators should help trainees plan task based teaching units and provide the theoretical concepts in the process. Special emphasis on strategies for paying attention to individual learners, remediation and feedback may be laid. The trainees should be given orientation and practice on how to use direct and summary teaching; plan monitorial assistance; peer groups and peer tutoring activities; self-study; collective teaching; out-of-class activities; extended teaching. supplementary reading, etc.

Non-Formal Education

THE constitutional provision under Article 45 on universalisation of education up to the age of 14 years is yet to be fully achieved. It has not been possible to cover all children up to the age of 14 years, by the formal school system. Looking at the socio-economic constraints, non-formal education approach for the education of out-of-school children has been adopted. It is to ensure the provision of minimum essential educational facilities to all children.

It is desirable for the teacher trainees to understand the concept, scope and methodologies of non-formal education.

A special elective paper on non-formal education in elementary teacher education is therefore introduced. It will have a weightage of 5 per cent in the curriculum and will be allotted proportionate time, say 40 hours per year. The details are as follows:

Objectives

The general objective is to help teacher trainees

acquire knowledge, skills and attitudes related to concept, scope and programmes of non-formal education.

The teacher trainees should particularly be able to:

- Understand the need for providing education to the non-attending children through non-formal education centres for achieving universalisation of elementary education.
- Understand the concept, scope and programme component of the non-formal education.
- Develop learning materials characterised with relevance, flexibility and practicality.
- Organise non-formal education centres effectively in respect of physical aspects and instructional programmes.
- Develop an appreciation for educating the disadvantaged learners living in slums and remote rural area.

SYLLABUS

First Year

| Unit | Topic | Methodology | Time allocation : 40 Hrs. | | |
|------|--|-----------------------------------|---------------------------|----|----|
| | | | Theory | FW | PW |
| I. | <i>Need, concept and scope of non-formal education</i> | Lectures and discussion | 2 | -- | -- |
| II. | <i>Management of non-formal education</i> Central scheme of non-formal education, state level schemes of non-formal education, management of local non-formal education centres, cooperation and coordination between formal and non-formal educational agencies. | Lectures and discussion | 3 | -- | -- |
| III. | <i>Criteria for developing curriculum and learning materials</i> Relevance, flexibility and practicability | Lectures and discussion | 2 | 1 | -- |
| IV. | <i>The content of NFE curriculum</i> Health and hygiene, vocations, social awareness (social studies), environmental awareness (G.Sc.) literacy (language), numeracy (maths) and social and technical skills and co-curricular programmes. | Lectures, surveys and assignments | 2 | 1 | 4 |

Note: F.W. for Field work; P.W. for Practical work; Theory for instructional activities. Time allocation is in terms of hours.

| | | | | | |
|-------|---|--|---|---|---|
| V. | <p><i>Organisation of NFE centres</i> (a) Physical aspects: cleanliness, seating arrangements, physical look of the centre (b) Academic aspects, time-table, maintenance of records.</p> | Lectures, practical work and case-study | 2 | 2 | 1 |
| VI. | <p><i>Characteristics of NFE learners</i> Sociological and cultural background of the learners, psychological maturity, experiences in life, experience with concrete things and situations, linguistic ability, power of abstraction etc.</p> | Lectures, field work, case study | 4 | 4 | 1 |
| VII. | <p><i>Issues connected with dialect and standard language</i> Local dialect vs. standard language, relationship and gaps between local and standard language, dialect to standard language, collection of examples from local dialect and standard language.</p> | Lectures, practical work, assignments | 2 | - | 2 |
| VIII. | <p><i>Child centred and activity based learning in non-formal education</i> Child centred vs. subject centred approach, emphasis on learning rather than teaching, concept of child development, students as active learners rather than passive listeners, identification of activities relevant to objectives and content.</p> | Lectures, practical work, assignments | 2 | - | 2 |
| IX. | <p><i>Incentives provided to the disadvantaged groups of society and their utilization</i></p> | Lectures, field visits to schools and discussion with teachers | 1 | 2 | - |

Incentives, mid-day meals, free books and stationery, free uniform, other ancilliary services

Total Time

20 10 10

SECOND YEAR

40 Hrs.

| | | | | |
|--|--|---|---|---|
| <p>I. <i>Problems of non-formal education</i></p> <p>Lack of motivation in learners and community, scarcity of time with the learners, irrelevance of curriculum to the day to day needs of learners, lack of physical facilities at home, lack of linguistic ability, lack of power, etc.</p> | <p>Lectures, practical work, field work and surveys</p> | | | |
| <p>II. <i>Organisation of non-formal education programmes</i></p> <p>Rapport with the learners, study of home and community situations, organisation of centres in respect of time available with the learners, flexible management of non-formal education centres, curriculum to the life style of the learners and their communities.</p> | <p>Lectures, discussion and practical work</p> | 2 | - | 3 |
| <p>III. <i>Analysis of curriculum portions for devising teaching in the centre</i></p> <p>Identification of teaching points related to local environment and in relevance to the needs and problems of learners.</p> | <p>Lectures and practical work</p> | 2 | - | 3 |
| <p>IV. <i>Concept of multigrade and mixed ability group teaching</i></p> | <p>Lectures, planning and implementation of some lessons to mixed ability groups</p> | 3 | 4 | 4 |

| | | | | | |
|-------|---|---|----|----|----|
| | Time and space management strategies, multigrade teaching with monitorial system, peer group work, collective teaching and self-study exercises, organisation of instructional programme on sample basis. | | | | |
| V. | <i>Study of social structure of the community and concept of community cooperation</i> Establishment of rapport with the community, involvement of community in organising non-formal education centres. | Field visits and discussions | 2 | 1 | - |
| VI. | <i>Demographic, socio-cultural background of the community</i> Study of local population—customs, conventions, festivals etc. | Discussions, assignments and field visits | 1 | 1 | 1 |
| VII. | <i>Utilization of children's experiences and local environment for subject teaching</i> Learner's routine, play activities, local games and their utilization in organising instructional programme | Lectures, practical work | 1 | 1 | 2 |
| VIII. | <i>Case study of one project being run by any voluntary organisation</i> | Field visits and assignments | 2 | 2 | 1 |
| | Total Time | | 15 | 10 | 15 |

Scheme of Evaluation

A scheme of continuous and comprehensive evaluation will be developed by the teacher training institution imparting the course in non-formal education as a special paper. The total marks for this paper are 100. The distribution of 100 marks is as follows:

| | | |
|--------------------|----------------------------|------------------------|
| Theory 50 marks | Practical Work 25 marks | Field Work 25 marks |
|--------------------|----------------------------|------------------------|

The achievement of teacher trainees on the theoretical aspects would be evaluated on question papers set externally. Practical work will be in the form of assignments related to theoretical work. These assignments and the field work will be evaluated internally.

Internal evaluation will be of continuous and comprehensive in nature. Diagnostic and remedial programme will be developed by the teacher training institution to integrate testing and teaching so as to lead to skill and attitudinal development. Unit tests comprising short answer and objective type questions would be prepared for each unit by the concerned teaching staff for diagnostic and remedial purposes.

Guidelines for Teacher Educators

The paper on non-formal education is a stage specific paper aimed at generating concern, commitment, competence and confidence in the teacher trainees to tackle general and specific problems pertaining to children attending non-formal education centres. The following guidelines are suggested for teacher educators to help proper planning and transaction of the course outline.

1. The general approach in the planning, organisation, transaction and evaluation of the paper should

be participatory and investigatory. The trainees and the teacher educator(s) will work together to explore the problems and needs of learner clientele at the primary level and seek solutions to remedy short-falls and weak points. A participatory approach is recommended. Under this, sometimes, the teacher educators would constitute small groups of trainees and assign them topics/themes for discussions in small groups. Sometimes they will constitute panels to discuss and guide; sometimes they could also plan how to conduct group discussions in the community especially with illiterate parents, tribal groups and lead teacher pupils in doing parental counselling.

2. The teacher educator(s) should conceptualise the expected role of the teacher trainees in the different school situations in this area. The roles should be drawn from the general and specific objective given earlier. Specific assignment may be formulated to draw out roles such as:

- (i) Conducting survey of out-of-school children.
- (ii) Exploring the areas relevant to the needs of out of school children.
- (iii) Organising discussion with parents regarding retention of learners.
- (iv) Organising multigrade teaching/mixed ability group teaching for heterogeneous groups.
- (v) Assignments/tasks on outdoor and field work to sensitise teacher trainees in the actual situations.
- (vi) Intensive orientation on the social, cultural, linguistic characterisation of the learners and their communities, implications for the schooling/learning of disadvantaged population groups with an emphasis on how to tackle problems arising in the contexts.

Girls Education

WOMEN'S education has been considered as a priority programme since independence but inspite of the efforts, the education system has not been able to achieve women's equality. Female literacy rate is as low as 25 per cent. Seventy per cent of the non-enrolled children in the age group of 6-11 years are girls. The percentage of non-enrolled girls in the age group of 11-14 years is about 60. In view of the priority accorded to women's education, the role of the teacher in facilitating education of girls assumes significance.

Studies in the area of girls education* reveal that low enrolment of girls and their high dropout rate are influenced by:

- General economic needs of families and the expected role of girls.
- Social structure of the community.
- Illiteracy of parents.
- Involvement of girls in house-hold activities.
- Unwillingness of parents to continue girls education.
- Studies on enrolment and retention rates of girls show that the participation rate of girls could be increased by programmes such as:

- Sensitizing parents and communities for educating girls.
- Providing learning facilities through formal and non-formal education to suit the convenience of girls in their own set-up.
- Linking education with productivity.
- Planning and transaction of co-curricular activities for motivating girls and their families for schooling.
- Provision of incentives to facilitate girls education.
- Creating a socially secure environment for girls.

General Objectives

To provide insight and skills to the teacher trainees for promotion of girls education at the elementary stage.

Specific Objectives

The teacher trainees will be enabled to:

- Appreciate the role and contribution of women in the Indian society.
- Understand the position of education of girls in the context of universalisation of elementary education at micro levels.

*Also used as *Women's Education* in this chapter.

- Diagnose social, economic, cultural and demographic reasons affecting women's education in the macro and micro level contexts.
- Develop educational programmes for women with a focus on their developmental needs.
- Identify strategies and action programmes for mobilising opinion and support of parents, teachers and community for the promotion of women's education.
- Integrate women education programmes with developmental activities in the community.

SYLLABUS

FIRST YEAR

40 Hrs.

| Unit | Topic | Methodology | Time allocation | | |
|------|--|---|-----------------|----|----|
| | | | Theory | FW | PW |
| I. | <i>Position of Girls Education</i> | | | | |
| | (a) Female literacy: general, in rural, urban areas or scheduled castes and scheduled tribes, implications of female literacy for the social and educational status of women in India and in micro-level contexts. | Lectures, seminars, field visits to schools and in the community. | 4 | 4 | 2 |
| | (b) The role and contribution of women in the Indian society | Lectures | | | |
| | (c) Leadership role of women in the development of modern India and in scientific, literary, vocational and other spheres. | Panel discussion by teacher educators of the training college | | | |
| | (d) Enrolment ratio of girls at primary and upper primary level: implications for universalisation of primary education and non-formal education for girls. | Tutorials and assignments | | | |
| | (e) Existing laws related to the protection of women from exploitation. | | | | |

Note: Theory means instructional work, P.W. stands for practical work, F.W. stands for Field work, Time allocation is in instructional hours.

(a) Problems of repetition and dropping out of girls in general and specifically in rural and remote areas and of girls belonging to educationally disadvantaged communities

Discussions, case study of one primary school's enrolment over the last 5 years

II. Problems in the promotion of Girls education

(a) Problems and constraints

Lecture and discussions

3 3 4

(b) Sociological background

(c) Psychological constraints such as low profile, lack of motivation, etc.

(d) Economic and allied activities.

(e) Role expectations from girls

Discussion

(f) Learning problems and other curricular constraints faced by girls

Field visit

4 4 2

Discussions with parents and teachers

III. Strategies for promotion of Girls education

(a) Incentive scheme by the central and state governments such as exemption from tuition fee, stipends, book bank, free uniforms, (full description of scheme, their objectives, and teacher's role in the effective use of the schemes.)

Lectures and discussions

(b) Programmes for sensitizing and mobilising public opinion, counselling of parents of girls who are irregular and potential dropouts; strategies for conducting group discussions with women, illiterate parents and local com-

| | | | | |
|---|--|----|----|----|
| <p>munity members; skills in counselling the community about the advantages of educating girls.</p> | <p>Field work, discussions, counselling techniques</p> | | | |
| | | | | |
| IV. Potential programmes for promoting girls education | | | | |
| <p>(a) The role of village education committee in the furtherance of girls education.</p> | | 4 | 4 | 2 |
| <p>(b) Strategies for motivating girls for active classroom participation and continuation of their education.</p> | <p>Lectures, assignments, field study</p> | | | |
| <p>(c) Programmes and schemes in non-formal education for the promotion of women's education.</p> | | | | |
| <p>(d) Incentives and programmes to be developed with the support of local community, voluntary workers, philanthropic organisations for continuance of girls education</p> | | | | |
| <p>Total Time</p> | | 15 | 15 | 10 |

SECOND YEAR

40 Hrs.

| | | | | |
|---|---|---|---|---|
| I. Role of the Teacher in the Promotion of Women's education | | | | |
| <p>(a) Strategies for transacting curricular programmes for attracting women and retaining them in the school.</p> | <p>Curriculum analysis, development of instructional material</p> | 6 | 6 | 2 |
| <p>(b) Planning enrolment drives for girls and ensuring their continued education in the formal and non-formal education set ups.</p> | <p>Field work, assignments</p> | | | |

(c) Mobilising local support for helping girls in their studies in their homes and localities.

Field work, assignments

II. *Developing special Education Programme*

4 2 8

(a) Role of teachers in promoting education of women, especially from the weaker sections.

Lectures, field work, Practical work (school based) activities, assignments

(b) Planning of co-curricular activities for girls of the age-group 6-11 years and 11-14 years.

(c) Planning and organisation of productive activities for girls in the age-group of 6-11 years and 11 to 14 years.

Practical work (school based activities)

(d) Planning and organisation of within class, inter-class, inter-school competition for girls.

Practical work, (school based activities), tutorials.

III. *Strategies for Raising Academic Achievement of Girls*

(a) Elimination of sex bias for women in school programmes; textual material, teachers, pupils and community behaviours.

Lectures, textbook, analysis, field work.

(b) Planning remedial, reinforcement and feedback programmes for girls

Practical work (school based programme), field work

Total Time

15 10 15

Scheme of Evaluation

The scheme of continuous comprehensive evaluation will be developed and used to evaluate the achievement of teacher trainees. There are 100 marks allotted for the paper. The distribution of 100 marks is as follows:

| | | |
|--------------------|------------------------|----------------------------|
| Theory 50 marks | Field work 20 marks | Practical Work 30 marks |
|--------------------|------------------------|----------------------------|

The achievement of teacher trainees on the theoretical portions will be evaluated externally. Practical work including the assignments relating to theoretical topics and field-work will be evaluated internally. Internal evaluation will be continuous and comprehensive in nature. Diagnostic and remedial programmes will be developed by the teacher training institution to integrate testing and teaching so as to make learning effective.

Guidelines on Methodology

The following guidelines are suggested for the teacher educators to plan and transact women’s education:

1. The general approach in the planning, organisation, transaction and evaluation of the content of the paper should be participatory and investigatory.

Teacher trainees and teacher educator(s) will work together to explore problems and seek solutions to remedy shortfalls and weak points. In this effort, sometimes, the teacher educator would constitute small groups of trainees and assign them topics/themes for discussion in small groups, panel discussion, guiding them to conceptualise the concepts. The teacher educators will help teacher trainees plan how to conduct group discussion in the community especially with women, illiterate parents, tribal groups and how to do parental counselling in the case of irregular students, absentees and potential drop-outs.

2. The teacher educator should conceptualise the expected role of the teacher trainees in the different school situations for the promotion of girls education. The roles will be drawn from the general and the specific objectives given earlier. Some assignments, may be identified for

- (i) sensitizing the community for women’s education.
- (ii) counselling of the individual parents for the retention of girls.
- (iii) motivating and encouraging parents to educate their daughters for the full duration of elementary/primary education.

3. Assignments/tasks should include outdoor field work to sensitize teacher trainees to actual situations.

Special Education for Disabled

PERSONS with disability constitute the least served group in the drive to achieve the goal of 'education for all'. The fact has been recognised in the National Policy on Education. It has been justifiably brought in the section on equal education opportunity.

The NPE has recommended education of children with disability, as far as possible, in common with others in general schools. The Programme of Action has stated the placement principle. No disabled child who can be educated in general school should be placed in special school. Even if a child is placed in a special school because of the severity of disability, he/she should be brought to a general school as soon as he/she acquires the self help, communication and basic academic skills. The implication is that more and more children with disability will join general schools. The fact is that large number of children with mild disabilities do enter the school system but many drop out due to the lack of sensitivity to their educational needs in the system. To achieve the goal of 'education for all', the school system needs to be adequately prepared.

Teacher is the single factor standing clearly in the school system who matters most in meeting special needs of children with physical, sensory and intel-

lectual disabilities. The preservice and inservice teacher education programmes therefore need reorientation to equip teachers to meet special needs in classroom.

The framework for primary and secondary curriculum suggests improved access of children with disability to different curricular areas. The framework for teacher education has also suggested that all prospective teachers should receive essential knowledge and skills to deal with educational needs of these children. At the primary level, this area has been allotted 5% weightage in terms of time. The area has been titled as "Education of the Disabled-Implications for Teacher Education". At the secondary level, it is proposed to offer this component as an elective area just like other special areas.

The guidelines are confined to the component input in preservice training of general teachers and do not cover single disability or multicategory training of special teachers. For this, two levels of course input has been designed.

Level one envisages essential components of special education integrated into relevant teacher education courses at different levels. This alternative

to a separate course in special education is preferred for several obvious advantages. In relevant courses it will receive the same emphasis as the relevant course. No prospective teacher will be able to undermine the course which is likely, if it is offered as a self contained separate course, at least by some student teachers. Secondly, it will not be perceived as additional curriculum load. It will be perceived as organic component of general education. Thirdly, it will prepare teachers to meet broader special needs in classroom. Finally, it is going to be a significant step towards fusion of special and general education.

Level two course on special education will be a self contained advance course which can be opted by the prospective teachers who are interested in gaining higher knowledge and skills in this area. This course will include plus curriculum areas for children with sensory, intellectual and physical impairments. If one teacher with this level of course is available in each school, the school can meet the needs of most of the children with special needs.

After completing level one course, the student teacher will acquire:

A. Essential knowledge about—

- (i) Special needs of children with physical, sensory and intellectual impairments in the context of 'education for all'.
- (ii) Identification and assessment of special needs in classroom.

- (iii) Curriculum adjustment and adaptation of instructional procedures for improved access of children with special needs to different curricular areas and
- (iv) The use of different resources for functional classroom management to meet special needs in classroom.

B. The skills to—

- (i) Identify special needs;
- (ii) Work with other professionals, wherever necessary to assess special needs.
- (iii) Plan and implement instructional procedures adapted to special needs, and
- (iv) Handle special aids and equipment used for overcoming disability effects of children.

C. Positive attitude towards—

- (i) Disability and children with disability.
- (ii) Abilities and commonalities among disabled and non disabled children rather than disability and differences, and
- (iii) Their own capability to design learning environment for all children in classroom.

The content of the essential component special education for disabled children, along with the teacher education course in which it can be plugged, has been outlined in the table below:

*Table 1 : Level One Course Content**UNIT I : Children with Special Needs, and Equal Education Opportunity*

- Right to education
 - Education for all
 - Equal education opportunity
 - Special needs and education for all
 - Factors resulting in special needs (within child, in home and school environment)
 - Special needs arising out of physical, intellectual and sensory impairments
 - Educational provision—special and general schools
 - Related terminology
- (to be plugged in the foundational course I)*

UNIT II : Identification and Assessment of Children with Special Needs

- Need for early identification
 - The identification process (who should do and how?)
 - Appearance and behaviours for identification
 - Professional assessment
 - Tools and procedure
- (to be plugged in course on educational psychology under individual need including practicals and practice teaching)*

UNIT III : Curriculum Adjustment and Adaptation to Special Needs Arising out of:

- Visual impairment
 - Hearing impairment
 - Orthopaedic impairment
 - Low level of intellectual functioning
 - Learning disability
 - Multiple impairments
- (to be plugged in relevant curriculum and teaching courses)*

UNIT IV : Special Aids and Equipments

- Aids for sensory impaired children
 - Educational toys and other aids
- (to be plugged in courses dealing with teaching—learning aids in different teaching areas).*

UNIT V : Classroom Management

- Seating arrangements for children with special needs
 - Utilizing resources for meeting special needs employing:
 - Cooperative learning
 - Peer tutoring
 - Parent partnership
- (to be plugged in course on teaching including practice teaching)

UNIT VI : Evaluation Procedures Adjusted to Special Needs and Recording of Progress of Children with:

- Visual impairment
 - Hearing impairment
 - Low level of intellectual functioning
 - Learning disability
 - Multiple impairments
- (to be plugged in course carrying evaluation unit in different teaching subjects).

After completion of this course, the student teachers will acquire:

A. Essential knowledge about—

- (i) Daily living skills for children with different disability.
- (ii) Procedures and techniques for orientation and mobility,
- (iii) Methods of teaching braille reading and writing, and
- (iv) Methods of teaching language and speech development in hearing and speech training.

B. Skills to—

- (i) Use braille kit and brailier
- (ii) Use mobility aids and-giving mobility training
- (iii) Handle special aids and equipment and simple repair and maintenance, and
- (iv) To organise language and speech training for hearing and speech impaired.

C. Positive attitude towards—

- (i) Disability and disabled persons, and
- (ii) Their own capability to use special methods and equipment.

Table 2 : Level Two Course Content***Unit I : Daily Living Skills for:***

- Visually impaired
- Hearing impaired
- Children with low level of intellectual functioning
- Learning disabled
- Orthopaedically handicapped
- Multiple handicapped.

Unit II : Orientation and Mobility

- Physical orientation
- Pre-cane skills
- Cane skills
- Mapping and landmarks
- Other aids to mobility.

Unit III : Braille-Reading and Writing

- Pre-braille reading skills
- Braille reading skills
- Braille writing skills
- Braille reading and writing speed.

Unit IV : Language and Speech Training

- Language and speech training for hearing and speech impaired
- Total communication.

Unit V : Special Aids and Equipment

- Braille kit, Braille, Thermoform machine, aids for reading—writing for low vision children, speech trainer, hearing aid, etc.
- Educational toys
- Use
- Simple maintenance and repairs.

Unit VI : Organisation of special services

- Support to peer teachers
- Providing plus curriculum skills to children
- Mobilisation of support from governmental and non-governmental organisations

The level two course is an elective advance course. Both courses can equip the general education system to meet special needs in classroom.

Practicals

In level one course, practicals like identification of special needs and assessment will be carried out under the relevant course. Teaching to meet special needs will be included in practice teaching programme relating to each curricular area. Adaptations of curriculum and methods of teaching to special

needs can also be undertaken in each of the curricular areas. In level two course, practice will be provided in each of the skills with at least one visually impaired, hearing impaired and educated mentally retarded child. Hand on experiences will be provided in the use of special aids and equipment in resource centres. Visit to other institution dealing with disabled children can also be organised.

Practicum cum Field Work

School Experience Programme (SEP)

SCHOOL Experience Programme is considered to be a very important 'practical' phase in student teacher's preparation for 'regular' teaching at any level of school education. SEP is also regarded as the only 'activity programme' in teacher education through which a student teacher is helped to develop awareness, understanding and knowledge of the best ways of establishing a linkage of a cordial nature between home, school and community for enriching the life of the elementary school learner. It also enables the student teachers to apply and verify for themselves the practicability of the theoretical knowledge of foundation courses, content of various academic subjects, methods and techniques of curriculum transaction and evaluation, class and school management in actual school situations.

In the following pages, guidelines have been prepared to give some orientation to SEP as a whole; and to answer some significant queries often raised by those who are involved with student teachers in this programme. In presenting the guidelines, the following aspects of SEP have been taken into consideration:

- I. Connotation of SEP
- II. Need for such a programme

- III. Objectives of the programme
- IV. Guidelines for organising the programme
- V. Organisation of activities and their supervision
- VI. Evaluation, and
- VII. Follow-up programme.

Connotation of SEP

The term, "school experience programme" has been used in a wider context and should be interpreted accordingly. Earlier, the SEP was limited only to 'practice teaching' done by student teachers, observation of a few demonstration lessons given by teacher educators and senior school teachers, practice lessons taught by other student teachers, development of lesson plans and teaching aids and classroom teaching. Practice teaching was assumed as a programme and responsibility of teacher training institutions alone. Sharing of this responsibility with the school faculty was almost absent. Gradually, ally, emphasis began to be laid on the partnership nature of this responsibility between the teacher training institutions and practising/cooperating schools for providing relevant experience to student teachers to enhance their capabilities for better class-

room teaching. Although student teaching sought to encompass within its fold, certain other aspects of teacher functions, its focus for a long time continued to be only on classroom teaching. The term SEP emphasizes that besides classroom teaching responsibilities, prospective teachers under training need to know, exercise and learn how to play their other roles outside the class and within the school in order to give them a broader vision and perspective of their roles and functions in the total school programme. This stress lays greater importance on the student teachers being attached to certain school teachers for a specific period of time and actively participate in organising all kinds of school activities (in which the student teachers have more interest and greater ability) involving different groups of children and various school teachers and sometimes community resource persons, if need be.

SEP is thus seen essentially as a learning process which provides an opportunity and a challenge to the student teachers to apply the knowledge of various subjects, principles and techniques of teaching, his knowledge of characteristics of children from varied cultural backgrounds to real life situations of the classroom, school and the community that school serves. SEP has two very different significant parts: planning of student teaching and planning of school activities closely linked with student teaching.

Need for such a Programme

The main concerns in chalking out school experience programme are to:

- (i) View this programme as an integral part of the entire design of teacher education curriculum rather than a separate entity, as there is always a tendency to overlook this aspect.

- (ii) Give a 'forward looking' approach keeping in mind the new educational needs of an elementary school in our changing society.
- (iii) Make the programme relevant and adequate, by examining the peculiar local needs and constraints of elementary school, to provide for alternative organisational models, if needed.
- (iv) Examine and use the programme to enrich the theories of elementary teacher education in Indian context of multi-lingual, multi-religious and multi-ethnic communities.
- (v) Understand through this programme, the linkage between home, school and the community in order to enrich the life of an elementary school learner.
- (vi) Grade and phase out activities keeping in view three distinct stages of elementary education comprising-
 - (i) Classes I and II as the first stage,
 - (ii) Classes III, IV and V as the second stage, and
 - (iii) Classes VI, VII, and VIII as the third stage.
- (vii) Plan out a built-in machinery for comprehensive and continuous evaluation of student teacher and monitoring of the programme itself.

Objectives of SEP

A. General Objectives

SEP in teacher education will enable the student teachers to:

1. Acquaint themselves with the conditions

under which they would normally be required to work, the problems teachers generally face in the real school situations and the possible ways and means of dealing with them.

2. Get support of different human relationships that exist in school for successfully planning and executing the assigned school work.
3. Develop skills to make self-evaluation, having three dimensions of effectiveness: (a) in handling the subject matter, (b) in dealing with individual child or groups of children; and (c) in enhancing their professional growth.

B. Specific Objectives

1. Plan and implement the instructional programmes systematically in logical and psychological sequence.
2. Plan and prepare lessons of different subjects they are required to teach.
3. Select, procure, prepare, improvise and use learning materials and teaching aids.
4. Try-out different teaching styles and approaches including multiple class teaching.
5. Proper use of communication media (print and non-print) in a variety of situations.
6. Develop skills in identifying children having special needs, and understanding their behaviour.
7. Acquire skills of diagnosis and remediation.
8. Develop different evaluative tools and devices, make use of them in school, analyse the data and interpret their

results for improving teaching-learning process.

Guidelines for Organising SEP

Two assumptions have been taken into consideration while preparing the guidelines. These are:

- (i) The SEP needs to be spread over two years.
- (ii) 20 per cent of the total time i.e., 480 hours available in both the years of the elementary teacher training should be allocated for the same.

The guidelines for organising the SEP are as follows:

1. Student teacher is to be provided experience of teaching in all the curriculum areas at the primary stage including work experience, health and physical education and art education. Experience of teaching two subjects has also to be provided at the upper primary stage in classes VI to VIII.
2. A student teacher in the primary classes should be expected to work as a class teacher and in the upper primary classes as a subject teacher.
3. In both the stages of teaching, the student teachers should be provided opportunity to have practice in various types of observational techniques to know and understand the child in different school situations and to master at least two techniques of teaching, namely, discovery method and inductive approach to teaching which may help the student teacher to develop initiative and creativity in teaching style.

4. The student teachers should also be given further opportunity as to how to deal with different types of children in small groups, having special needs and coming from weaker sections of the society. They should receive guidance also in organising school practical work related to teaching such children.
5. It should be the prime concern of the teacher training institute to supervise student teachers with the help of teachers of the cooperating schools. They should continuously give guidance and feedback to student teachers for improving their performance in the school.
6. It is suggested that wherever possible 100 per cent internal evaluation should be followed. But where constraints exist, 75 per cent of weightage may be provided for internal assessment and 25 per cent for external evaluation. The external evaluation may preferably be done by a panel which should include at least one internal examiner.
7. The student teachers should be given opportunity for self-evaluation of their performance.
8. The school experience programme should be continuously evaluated keeping all aspects into consideration. It should not only include classroom teaching but also the participation in and organisation of activities in the school by the student teachers. Also some written assignments or reports, based on their visits to different places and observations of various aspects of school environment, should be evaluated.
9. It is desirable that structured tools for evaluation of different activities, like observation of lessons, supervision of teaching and various other activities conducted by student teachers, should be developed and used.
10. The supervisory staff should not only support, guide and evaluate the student teachers but also assist them in gaining confidence in handling the school pupils and subject matter.

Organisation of Activities and their Supervision

First, in organising the school experience programme, allocation of time to be provided for different activities and spreading these over both the years are necessary. Secondly, the planning and organisation of this programme should be done in a democratic way, seeking the help of school teachers, student teachers and teacher educators. Thirdly, this organisation of school experience programme should be viewed as a part of the institutional planning of the school.

Organising such a school programme needs a very well-planned orientation/readiness programme in which again the student teachers and the school personnel need to participate. In this readiness programme, the attention has to be given to the study of different types of children coming from different socio-economic background as school composition of children will be a very heterogenous because of the national drive for universalisation of elementary education.

Organisation of various activities under SEP can be classified under two heads:

- (a) Orientation/readiness activities
- (b) Actual SEP activities

(a) Orientation/Readiness Activities

The main purpose of organising the activities under the orientation/readiness programme is to make the student teachers understand the children whom they are supposed to teach; the different teaching skills to be followed for the three different stages of elementary education and to understand the school environment in which they have to work. The time to be allocated for readiness activities should not be less than four weeks including preparation of lesson plans, practice of core teaching skills and observation of various school activities.

The suggested readiness activities for the SEP may include the following:

- (i) Visit to schools to study school environment and to observe teachers at work and children's music, physical and games activities. Observation skills may be developed in student teachers by giving them observation schedule which may indicate what, how, when and why to observe and also to write a concise report of observation.
- (ii) Visit to other places of interest such as:
 - (a) Rural non-formal classes for children between 6 and 14 years.
 - (b) Rural craft centres, farms, cottage industries, potter's wheel, black smith's shop, river, pond, hillock, railway line etc as learning centres.
 - (c) Juvenile courts, remand homes etc. in urban areas.
 - (d) Special schools for the handicapped.
 - (e) Single teacher primary schools.
- (iii) Collect statistical data of primary and upper primary schools, teachers, children from different cultural groups and interpret their results.

- (iv) Observe lessons of teacher educators and good teachers in the schools.
- (v) Hold meetings with the teachers who have conducted innovative activities.
- (vi) Prepare lesson plans.
- (vii) Practice core-teaching skills in simulated conditions.

(b) Actual SEP Activities

It is expected that the student teachers should have four weeks of actual SEP in the first year and 8 weeks of SEP in the second year, in which they will do teaching in the classroom as well as conduct school practical work related to teaching. As stated earlier in the guidelines, every student teacher is to teach all subjects at the primary stage and any two subjects at the upper primary stage. In the first year, the student teachers have to teach classes I and II at the first stage and classes III, IV and V at the second stage. In the second year, they are supposed to teach classes VI to VIII and take up only those two subjects which they themselves studied at the senior secondary or intermediate stage.

The student teachers should also be given opportunity to observe peer teaching, organise and participate in co-curricular activities and community contact programmes. The community contact is established for doing community service as well as utilising community resources for school improvement programme.

The following list of activities can be suggested for the actual SEP:

1. Study school plant
2. Plan games (supervised play)
3. Prepare institutional materials such as art material using paints and clay, charts,

- tables, bulletin, boards etc.
4. Prepare resource materials for a unit lesson such as
 - (i) content information
 - (ii) supplementary books and other aids
 - (iii) pictures, maps and other display material
 5. Assist in field trips/excursions
 6. Participate in school-community projects
 7. Do clerical work to help administration (student record, teacher-made tests, anecdotal record, supply orders etc.)
 8. Participate in curriculum enrichment programme (tell stories, read poems, help in choral reading, sing/play an instrument, teach a folk song/dance, discuss current events etc.)

Supervision and guidance are to be provided continuously to the student teachers with a view to improve their teaching skills and other organisational abilities.

Evaluation

Evaluation has twin purposes of reinforcing learning and certification. Then it has to satisfy the standard criteria of validity, objectivity and reliability. Therefore, in the guidelines (item No.6) provision of 75 per cent internal and 25 per cent external evaluation is indicated. However, it would be desirable to move towards 100 per cent internal evaluation.

Evaluation of SEP will mainly be of the student teaching programme and related activities of the trainee in the cooperating school. But certain things will simultaneously be done at the T.E.I. level under readiness programme to reinforce and supplement

such experience e.g. lesson planning, practice of teaching skills under simulated conditions, preparation of teaching aids, learning/resource materials, preparation of reports/assignments on school visits, etc. A tentative break-up is suggested below:

First year

| | <i>Items</i> | <i>Weightage</i> |
|---------|---|------------------|
| I. (a) | Preparation of teaching aids and resource materials | 15 per cent |
| (b) | Reports on school visits | 10 per cent |
| II. (a) | Micro teaching and simulated exercises, before and during SEP. | 15 per cent |
| (b) | Planning of lessons | |
| III. | Actual SEP at primary stage: student teaching, observation of lessons and organisation of school activities | 60 per cent |

Second Year

| | | |
|---------|---|-------------|
| I. | Preparation of teaching aids and resource materials | 15 per cent |
| II. (a) | Report on school environment | 10 per cent |
| (b) | Study of children | 15 per cent |
| III. | Actual SEP at upper primary stage: student teaching, observation of lessons and organisation of school activities | 60 per cent |

As student teachers are allowed to take classes I to V in the first year, evaluation may preferably be done separately to find out their teaching skills in teaching classes I and II and classes III to V. In the second year, evaluation of teaching skills for teaching classes VI to VIII may be restricted to the teaching of two subjects only. In evaluation, credit should be given if student teachers have carried out any innovative practice(s) in teaching, preparation of teaching aids or dealing with pupils, parents and other community resources.

The above scheme of evaluation is not prescriptive; so also the weightage in terms of percentages. One can adapt according to the needs of the specific programme.

Follow-up Programme

In order to make SEP successful, a follow-up programme is a 'must' as it serves the following two purposes:

- (i) to review the entire programme by identifying its strength and weakness, by finding out ways and means of removing bottlenecks/constraints that stand in the way of progress and by locating new directions for improvement; and
- (ii) to examine the nature and extent of student teacher development in the areas of employable skills of a teacher.

In this programme, evaluation may take place twice in two years of teacher preparation; first, at the end of first year's SEP; and second, at the completion of second year's SEP with the help of supervisors of the training institute, teachers of cooperating schools and the student teachers. Two approaches may be followed to evaluate the entire programme. One follow-up approach can be carried out with the help of a checklist and the other by conducting one or two seminars at the end of each of the two years of training.

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जे. 13/93 प्लाट नं.-22 , चौका पाट, काटन मिल कालोनी,
वाराणसी छावनी (उ०प्र०)
4. प्रो० आर.पी. श्रीवास्तव,
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5. श्रीमती एस.पी. गोयल
प्रवक्ता, एन.सी.ई.आर.टी. बरुन मार्ग,
डिफेंस कालोनी, नई दिल्ली
6. श्रीमती संयुक्ता लूदरा
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7. डा० रामजन्म शर्मा,
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एन.सी.ई.आर.टी, नई दिल्ली
8. डा० (श्रीमती) रविकान्ता चोपड़ा
रीडर, अध्यापक शिक्षा, विशेष शिक्षा और विस्तार सेवा विभाग,
एन.सी.ई.आर.टी., नई दिल्ली
(कार्यक्रम संयोजिका)

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4. Dr. R.M. Kalra
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5. Dr. N. Khan
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6. Dr. S.K. Ram
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7. Dr. L. Vishwanathan
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8. Dr. A.K. Sharma
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9. Dr. T.C. Daswani
Coordinator

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15. Dr. B. Deokinandan
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DTESE & ES, NCERT, New Delhi
Lecturer, (Convenor)

VII. List of Participants for the Workshop on Teaching of Science

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3. Dr. J. Mitra
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