

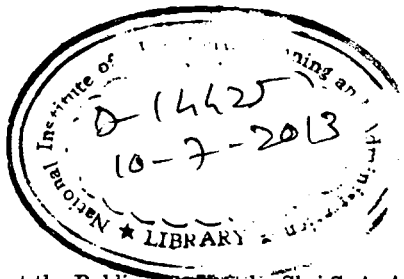
ELEMENTARY TEACHER EDUCATION

NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

December-1970
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Members of the Syllabus Committee

The Secretary,
National Council of Educational Research and Training,
16, Ring Road,
Indraprastha Estate,
NEW DELHI.

Dear Sir,

The National Council of Educational Research and Training, appointed vide your D.O. letter No. F.10/44/63/NCE.I, dated the 9th September, 1963, this Committee to evolve a syllabus for the training institutions for elementary teachers in the country with the following:

1. SHRI L. R. DESAI, **Chairman**
Vice-Chancellor,
Gujarat University,
AHMEDABAD.
2. SHRI RADHAKRISHNA, **Member**
General Secretary,
Akhil Bharat Sarva Sewa Sangh,
VARANASI.
3. SHRI J. P. NAIK, **Member**
Adviser (Primary Education),
Ministry of Education,
NEW DELHI.
4. DR. S. B. ADAVAL, **Member**
University of Allahabad,
ALLAHABAD.
5. SHRI V. S. MATHUR, **Member**
Principal,
State College of Education,
PATIALA.
6. Director, **Secretary**
National Institute of Basic Education,
(N.C.E.R.T.), NEW DELHI-9.

However, before the Committee could meet for the first time on November, 13, 1963, certain changes in the composition of the Committee were made by the Director, National Council of Educational Research and Training on 4th November, 1963. Shri P. K. Roy, Principal, Central Institute of

Education was included as an additional member and Shri B. N. Pandey Central Institute of Education was included as a Member-Secretary of the Committee. The Director, National Institute of Basic Education, who was the Secretary till then was nominated as a Member. The Committee had powers to co-opt two people which they did at the time of their first meeting on November 13, 1963. Dr. Salamatullah, Principal, Teachers College, Jamia Millia Islamia, Jamia Nagar, New Delhi and Shri K. B. Tergaonkar, Principal, Shivaratreshwar Basic Training College for Men, Mysore-2, were co-opted to serve on the Committee.

However, before the Committee could seriously launch on its work, the Chairman Shri L. R. Desai resigned because of ill health and lack of time due to his other insistent assignments. Shri J. P. Naik also resigned his membership of the Committee about the same time.

The Joint Director on April 1, 1964, suggested that Dr. S. N. Mukerji, Dean, Faculty of Education and Psychology, M.S. University of Baroda be requested to accept the membership and Chairmanship in place of Mr. L. R. Desai and the Committee should co-opt another member in place of Shri J. P. Naik, at its next meeting. Dr. S. N. Mukerji accepted the chairmanship of the Committee and Mr. J. C. Banerji, Prinicpal, Basic Training College, P.O. Kakraban, Tripura, was requested to fill in the vacancy created by Shri Naik's resignation. Meanwhile, Shri H. B. Majumdar, joined as Director of the National Institute of Basic Education and he also became a member of the Committee. Thus the Committee consisted of the following:

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| 1. | Dr. S. N. MUKERJI,
Dean,
Faculty of Education and Psychology,
M. S. University, BARODA,
Now Head of the Department of
Educational Administration, (NCERT),
DELHI. | Chairman |
| 2. | SHRI RADHAKRISHNA,
General Secretary,
Akhil Bharat Sarva Seva Sangh.
Rajghat,
VARANASI. | Member |
| 3. | DR. S. B. ADAVAL,
Head of the Department of Education,
University of Allahabad,
ALLAHABAD. | Member |

- | | | |
|-----|--|-------------------------|
| 4. | SHRI V. S. MATHUR,
Principal,
State College of Education,
PATIALA. | Member |
| 5. | SHRI H. B. MAJUMDAR,
Director,
National Institute of Basic Education,
DELHI. | Member |
| 6. | PROF. P. K. ROY,
Principal,
Central Institute of Education &
Head, Department of Teacher Education,
DELHI. | Member |
| 7. | DR. SALAMATULLAH,
Principal,
Teachers College, Jamia Millia Islamia,
Jamia Nagar, NEW DELHI. | Member |
| 8. | SHRI K. B. TERGAONKAR,
Principal,
Shivaratreshwar Basic Training College for Men,
MYSORE. | Member |
| 9. | SHRI J. C. BANERJI,
Principal,
Basic Training College,
P.O. Kakraban,
TRIPURA. | Member |
| 10. | SHRI B. N. PANDEY,
Field Adviser,
Department of Teacher Education,
Central Institute of Education,
DELHI. | Member-Secretary |

The Committee chalked out its programme and decided to gather evidence through questionnaires and interviews. Two questionnaires were prepared, one for teacher educators and administrators, etc., connected directly with teacher training and the other for lay people interested in education.

The Committee met at Bangalore, Mysore, Calcutta and Ajmer to interview the following categories of people from neighbouring States in India:

1. Chief State Administrator, In-charge of Teacher Education.

2. Principal or lecturer of a Basic Training Institute (Elementary).
3. One experienced basic trained teacher (School Teacher).
4. One educational thinker or scholar.
5. One parent or member of the community interested in educational matters.

The names of the witnesses who came to tender evidence before the Committee are given in Appendix II. The Committee is very grateful to them and also to those people who tendered their evidence by post. The Committee also placed on record its gratefulness to the authorities in the various States who permitted their officers to come and tender evidence before the Committee. In addition to the evidence collected, the Committee also considered the syllabuses already in existence and the practices in teacher education in India and abroad.

The results of the deliberations of the Committee are unanimous and are included in the chapters that follow.

Yours faithfully,

Members of the Committee

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Introduction

WITH THE DAWN of independence, active steps are being taken in the country for universalising elementary education amongst children in the age group of 6-14. Along with this, it has also been realised that the success of an educational plan depends on the recruitment of suitable young men and women as teachers, and the development of appropriate programmes of teacher education. The Indian Ministry of Education has, therefore, launched a number of projects for bettering the prospects of elementary teachers. It also took a lead for improving teacher education programmes. With this objective in view, it organised a National Seminar on the training of primary teachers in 1960. This was the first occasion to study the problem on a comprehensive and national scale.

While inaugurating the Seminar, Dr. K. L. Shrimali, the then Minister for Education, emphasised that a teacher training institution has the responsibility of preparing a new type of teacher with a vision of the new society and with a faith in values for which Free India stands. He also pointed out the main inadequacies of their programmes and remarked, "Our syllabi are defective from several points of view. Some of them are rather obsolete; many of them are too ambitious; and most of them take no account of the modern trends in teacher education". He thus focused the attention of the participants on the need for the improvement of syllabi.

1.02. The Seminar while discussing and reporting on the various problems made the following recommendations in regard to the content of the teacher education programme:

1. The work of drawing up a detailed model syllabus should be entrusted to a special committee appointed by the Ministry of Education. The draft model syllabus should be so integrated as to include the theory and practice of community development in so far as it relates to the education of the child and health education. The syllabus should also take into consideration the best elements of the Basic and non-basic syllabi.

1. Ministry of Education. Government of India. *Education of Primary Teachers in India*. Pub. 530. Delhi: Manager of Publication, 1961. p. 27.

2. Two different syllabi will be needed for two levels of training.

The Seminar further suggested that the Ministry of Education should make a thorough study of the problem of syllabuses and make the findings available to the States so that they can consider the revision of the syllabi.

1.03. In pursuance of these recommendations, the Ministry of Education appointed a study group which reported in 1962 . This study group also pointed to the need for framing a new model syllabus. It remarked: "There are at present over 30 different types of syllabi in use in the training institutions. Most of the syllabi have grown up by a process of accretion, new items being added in bits and pieces without deadwood being cleared out. There is very little in these courses which relates directly to the specific problems of teaching in the primary classes. It is necessary that a model syllabus should be evolved which can serve as the general framework within which such adaptations as may be required to suit the conditions of different States may be made."

1.04. A year later, the COPP team while discussing the programme of pre-service preparation of teachers observed: "A uniform standardization of programme would appear to be necessary."

1.05. These remarks attracted the attention of the Indian Ministry of Education. It directed the National Council of Educational Research and Training to appoint a committee for suggesting a model plan for preparation of Elementary School Teachers in the country. Accordingly, the present committee was appointed and came into existence on November 13, 1963 when its first meeting was held. Real work, however, began by the middle of 1964.

1.06. At its first meeting held on November 13, 1963 the Committee defined its terms of reference which included the following:

1. To prepare model curricula for a pre-service training course of two years' duration after High/Higher Secondary School examination, a three year course after the Middle stage and a one year course after graduation.
2. To suggest methods and programmes of in-service education for trained and untrained teachers.
3. To consider such related matters as objectives of training; the time available for training; methods of teaching and evaluation adopted in training institutions; textbooks and reading materials

2. Ministry of Education. Government of India. *The Training of Elementary Teachers in India*. Publication No. 673. Delhi: Manager of Publication, 1963, p. 34.

for student teachers; qualifications for teacher-educators and their pre-service and in-service training; minimum criteria to be fulfilled by training institutions etc.

4. To work out detailed syllabi for pedagogic part of it; and
5. To make broad suggestions regarding the methods by which the subject-matter knowledge of teachers can be improved and kept up-to-date.

1.07. The Committee decided to collect information through spot survey, questionnaire and interviews. The details of the questionnaire are given in Appendix 1. The respondents fall broadly into two categories—those engaged in the task of preparation and employment of elementary teachers, and outsiders who are interested generally in education though not directly engaged in the above task. In interviewing educationists and workers in the field, the Committee toured the country and met the respondents at Bangalore and Mysore, (May, 1964), Calcutta (Aug., 1964) and Ajmer (Sept., 1964). List of interviewees is given in Appendix II. The following five categories of persons were invited from each State to tender evidence before the Committee.

1. The Chief State Administrator in charge of basic training.
2. Principal or Lecturer of the Basic Training Institute (Elementary).
3. One experienced basic training teacher (school teacher).
4. One educational thinker or scholar, and
5. One parent or member of the community interested in educational matters.

1.08. In addition to drawing information on the above lines, the Committee also considered reports of various committees which had been appointed previously for considering different aspects of teacher education. It drew freely from their recommendations.

1.09. It may be noted that the Committee could not confine its attention to the development of model syllabi only. It had to consider other aspects of teacher education, if its recommendations regarding syllabi are to be implemented properly. Accordingly, it has discussed at length a number of inter-related problems like the preparation of teacher educators and educational administrators, administrative matters, and in-service education. The Committee also thought it desirable to develop the blue-print for an elementary teacher training institution. The main recommendations on the programme have, however, been treated at length in Chapter V–VIII.

1.10. The Committee also invited a few experts to draw up syllabi for certain fields of specialization. But for their valuable guidance, these syllabi

could not have been worked out in a short time. The Committee is very much thankful to them. The names of these specialists are given below:

1. Shri S. C. Chaudhri (Crafts), National Institute of Basic Education, Delhi-9.
2. Shri Hari Gade (Art), Central Institute of Education, Delhi-7.
3. Shri K. G. Rastogi (Hindi), Central Examination Unit, DEPSE, Delhi-7.
4. Shri A. R. Guha (Music), Post-Graduate Basic Training College, 24-Parganas, West Bengal.
5. Shri V. Joseph (Physical Education), Lakshmibai College of Physical Education, Gwalior.
6. Shri C. S. Bhandari (English), British Council.
7. Shri R. C. Saxena (Mathematics), Department of Curriculum, Methods and Text Books, New Delhi.

Finally the Committee felt it necessary that the entire report should be examined by actual workers in the field. Accordingly it submitted the draft report to various State Institutes of the country for their remarks and suggestions. This is how the report took its final shape.

The Education of Elementary Teachers in India- A Historical Survey (1787-1964)

THE PROFESSIONAL education of teachers is of recent origin in this country, and training institutions have come into existence since the beginning of the last century. It has undergone the following stages of development: (1) Early period, 1787-1857; (2) Second period, 1857-1904; (3) Third period, 1904-21; (4) Fourth period, 1921-47; and (5) Fifth period, 1947-64.

The First Period (1787-1857)

2.02. During this period there was almost no interest in teacher education *per se*. Training associations or institutions sprang up here and there to meet the need of elementary teachers, and were set up mainly by private organisations at the early stage. Later on, the Government established a few normal or training schools.

The method of training teachers prevalent in indigenous schools was what has come to be known as the 'monitorial system', which is a great contribution of India to the world for spreading education among the poor classes. The system assumed a scientific shape under the guidance of Dr. Andrew Bell. He was appointed as the Superintendent of the Military Male Orphan Asylum, Madras, in 1787. Want of adequate means to provide for the great number of applicants, combined with the fact that there was no competent teacher that could be engaged to assist him, led Dr. Bell to adopt the system. The monitorial system consisted in dividing a school or a class into a number of homogeneous groups—each group consisting of young pupils in charge of a monitor or an advanced student. It was the duty of the monitor to give lessons to his group, assist the pupils in learning and to report their behaviour and progress to the teacher.

2.03. Regular institutions for teachers were first established in the country by the Danish missionaries¹, and a normal school was set up at

1. T. N. Siqueira. *The Education of India*. Bombay: O.U.P., 195, p. 23.

Scramore by Carey. Later on, educational societies, organised in Bombay, Madras and Calcutta appreciated the need for training teachers. They established some centres for this purpose.

2.04. When the Bombay Native Education Society decided to start 'vernacular schools' whose object was to spread Western science and literature through Marathi and Gujarati, there was an absolute dearth of teachers who had a knowledge of these subjects. A training class for primary teachers was therefore started in 1824, and its curriculum confined attention mainly to 'science and literature of the West'. 'The course was of three years' duration. Incidentally, tuition was imparted in the technique of 'Monitorial system' but the main emphasis was on general education.

Normal classes were also attached to the Elphinstone Institution, Poona Sanskrit School, and Surat English School. When the Department of Education was created in 1855, there were five normal classes in the Bombay Presidency—two at Poona, two at Surat and one at Karachi. The duration of the training course was generally of two years. The syllabus included English, Sanskrit, Marathi, History, Geography, Mathematics (arithmetic, algebra, mechanics, astronomy and trigonometry) natural philosophy and the art of teaching².

2.05. In Bengal, the Calcutta School Society, established in 1819, took early steps to educate teachers of indigenous schools. In 1825, the Court of Directors awarded the Society a monthly grant of Rs. 500/- for this purpose³.

A training class for women teachers was also organised by the Calcutta Ladies' Society in the Central School for girls⁴. In his famous report, Adam made a very practicable suggestion for in-service education for teachers of indigenous schools. He proposed that the Vernacular Departments of English schools be converted into normal schools for that purpose. He further suggested that the teachers be required to study in the proposed schools for three months in a year for four successive years⁵. Thus his aim was the improvement of indigenous system, and the training of teachers during vacations. Such a practical scheme was, however, turned down by the Government. In 1849, the Bengal Government, established a normal school in Calcutta, and three more were set up in the presidency in the next decade.

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2. Government of Bombay. *A Review of Education in Bombay State, 1855-1955*. Bombay: Government Printing, 1955, p. 29.
 3. A. N. Basu, (ed.). 'Fisher's Memoirs', *Indian Education in Parliamentary Papers*. Bombay: Asia Publishing, 1952, p. 88.
 4. J. A. Richie, *Selections from Educational Records*, Vol. II, p. 38.
 5. A. N. Basu, (ed.), *Adam's Report*. Calcutta University, 1941, p. 231.

2.06. In Madras, a Central School for the professional education of teachers was set up in 1826 on the suggestions of Sir Thomas Munro, the Governor. An idea of the type of teachers' training to be provided in the Central School can be had from the circular letter dated 24th June, 1826, issued by the Secretary of the Committee of Public Instruction, Madras, to several officers of the presidency:

The Hindoos will be taught, on grammatical rules, the vernacular languages of the provinces to which they belong, and Sanskrit. The Mussalmans will be taught Hindoostanee, Persian, and Arabic; and both will be instructed in English language, as well as the elements of European literature and science.⁶

In 1856, the Madras Normal School was established. One of its objectives was 'to provide teachers competent to take charge of elementary vernacular training schools'.⁷ Thus it was considered necessary to give a specific training to teacher educators of elementary teacher training institutions. But this objective was unfortunately ignored.

2.07. In the North-Western Provinces, Thomason tried to introduce an in-service education programme for elementary teachers through the provision of supervision and inspection, and through grant-in-aid. The system was, however, abandoned very soon. Normal schools were also established in Agra, Meerut and Benares in 1852, 1856 and 1857 respectively.

2.08. The Wood's Despatch of 1854 stressed the training of teachers and desired "to see the establishment, with as little delay as possible, of training schools and classes for masters in each presidency in India." But nothing much was done.

2.09. It should be realised that the training institutions were established in order to prepare teachers for elementary schools. Students were admitted on the basis of their elementary school record. The curriculum continued very little of what is now considered professional education and aimed at imparting a knowledge of subject-matter which the teachers needed for teaching their pupils. Originally the teachers were trained on the Lancastrian lines. Later on, a system of apprenticeship by attaching pupil teachers to an experienced teacher for a fixed period was evolved. For example, the First Director of Public Instruction, Bombay laid down:

...Selected youths in each *taluka* should be apprenticed as pupil-teachers for three years, on stipends from Rs. 3 to Rs. 5 per mensem, to the ablest schoolmasters in the neighbourhood, and then on

6. A. N. Basu, (ed.), *Indian Education in Parliamentary Papers, op. cit.*, p. 112.

7. S. Sathianadhan, *History of Education in the Madras Residency*. Madras: Vadarachi & Co., 1894, p. 48.

successfully passing through their term of apprenticeship, they should be sent up for a further course of instruction on stipends of Rs. 6 per mensem to the District Training College, from which they should eventually return to their respective talukas as trained teachers⁸.

The Second Period (1857-1904)

2.10. This period begins with the end of the rule of the East India Company, and Lord Stanley, the first Secretary of State, in his famous despatch of 1859 remarked, "The institution of training schools does not seem to have been carried out to the extent contemplated by Court of Directors." The new grant-in-aid rules, framed after 1859, often provided a salary grant to schools only for those teachers who had obtained a certificate of teacher training. As a result of these measures, the training of teachers received increased attention. In 1881-82, there were 195 normal schools with 8,825 pupil teachers and the annual expenditure was four lakhs of rupees. During that year, hardly 18.4 per cent of elementary teachers were trained.

2.11. The Indian Education Commission, 1882, placed a great emphasis on the training of primary teachers. It observed, "It seems to us a matter of the greatest importance not merely that normal schools should be established at a few centres, but that they should be widely distributed throughout the country."⁹ The Commission further recommended:

1. That the supply of normal schools, whether Government or aided, be so localised as to provide for the local requirements for all primary schools, whether Government or aided within the division under each Inspector; and
2. That the first charge on Provincial Funds on Primary Education be cost of its direction and inspection and the provision of adequate normal schools.¹⁰

Both these recommendations were accepted by the Government. But they had no immediate effect. Sufficient number of normal schools were not opened. In 1901-20, there were only 155 primary teachers schools for the entire country with an enrolment of 5,405 and an annual recurring expenditure of 4.71 lakhs of rupees. But the percentage of trained teachers did not show any improvement. It remained the same as in 1881-82¹¹.

8. P. N. Mukerji. *History of Education* (Modern Period). Baroda: Acharya Book Depot, 1957.

9. *Report of the Indian Education Commission*, 1882, p. 131.

10. *Ibid.*, p. 134.

11. *Supra*, p. 5.

2.12. It may also be pointed out that the duration of the training course as well as the requirements of admission to training varied from province to province. Madras admitted persons who had completed the primary school and provided a one-year course while the Central Provinces gave them two years of training. Bombay and Berar had the same qualifications for admission but provided courses of one, two or three years duration, while Bengal provided courses of one or two years. U.P., Punjab and Assam had the same admission requirement, *viz.*, the completion of the middle school but while U.P. insisted on a two years course, Assam provided one, two or three-year courses and Punjab was satisfied with one year only.

2.13. It had already been discussed that the curriculum stressed more on academic subjects and less on pedagogy. This will be evident from the following account of subjects of study adopted in different provinces in the training programme of their primary teachers:

- 1. Madras :** (1) Organization, (2) Discipline and moral training, (3) Teaching, (4) Reading and recitation, (5) Blackboard exercises, (6) Freehand drawing, (7) Model lessons and criticism lessons, (8) Teaching in the practising schools;
- 2. Bombay :** (1) Vernacular language, (2) Classical language, (3) Mathematics, (4) History and Geography, (5) Elementary science, (6) Political economy (third year), (7) Drawing, (8) School management and teaching;
- 3. U. P. :** (1) Vernacular language, (2) Mathematics, (3) History and Geography, (4) General knowledge, (5) Elementary science, (6) School management, (7) Practice of teaching;
- 4. Punjab :** (1) Vernacular language, (2) Classical language, (3) Mathematics, (4) Geography, (5) Agriculture, (6) School Management, (7) Practice of teaching;
- 5. C. P. :** (1) Vernacular middle course, (2) School management and practice of teaching;
- 6. Assam :** (1) Vernacular literature, (2) Sanskrit, (3) Mathematics, (4) Surveying, (5) History and Geography, (6) Hygiene, (7) Rudimentary science, (8) Theory and practice of teaching¹².

Thus the training programme concentrated its attention more on 'subject matter' and less on 'pedagogy'. It aimed at covering the academic subjects, generally prescribed for the middle school course. Approximately 75 per cent of the training was devoted to the 'content' courses and the remaining 25 per cent to pedagogy including practice teaching. But this syllabus was

12. *Progress of Education in India, 1897-98 to 1901-02*, Vol. I, pp. 208-10.

more or less correlated with the work of primary schools. Thus it was no longer considered necessary to introduce to the teacher the highest form of Western sciences and literature through the medium of the mother-tongue. This was the practice till 1870. The following extract gives a general description of a normal school of the period:

The usual type of a normal school is a boarding school where students who have received a vernacular education are maintained by stipends and receive further general education combined with instruction in the methods of teaching, under supervision¹³.

2.14. Another interesting practice of the period was the award of certificates for teaching by the Department of Education on the results of departmental examinations. These were of two types: (1) students of training schools who completed a prescribed course of this academic and practical study; and (2) teachers of recognized schools who had rendered a certain period of service and held certain general educational qualification¹⁴. These latter were teachers of five to seven years' standing, who fulfilled certain required conditions, and who, by reason of their age and standing, were unlikely to undergo professional training.

One outstanding feature of the period was the establishment of normal schools for women teachers. There were as many 18 such institutions in 1901-02 with an enrolment of 351¹⁵. As educated ladies seeking admission to these institutions were hardly available, they did not generally prescribe any specific admission standard. Even illiterate women were admitted, provided they were intelligent and willing to be teachers.

2.15. Two interesting experiments of the period deserve a special mention. The first is the 'session schools' in Madras, and the second is the 'guru training class' in Bengal. The improvement of subject knowledge was the objective of 'sessional schools'. They were opened on a temporary basis in areas where there were a large number of untrained primary teachers. They prepared teachers for the entrance examination of normal schools and were closed immediately after that. The second experiment was started in 1885-86. Under this plan, the headmasters of selected middle schools were authorised to open classes for instructing the *gurus* of indigenous primary schools. The curriculum included the subjects of the upper primary examinations and an elementary knowledge of school method.¹⁶

13. *The Government of India Resolution on Educational Policy*, 1904, para 4.

14. *Progress of Education in India, 1897-98 to 1901-02*, Vol. I, p. 195.

15. *Ibid.*, Vol. II, p. 92.

16. Ministry of Education. Government of India. *Report of the Study Group on the Training of Elementary Teachers in India*. Delhi: Manager of Publications, 1963, p. 6.

The duration of the course was one year. It may be noted that such *ad hoc* method of improving the qualifications of primary teachers was fairly prevalent in many parts of the country.

The Third Period (1904-1921)

2.16. The training of primary teachers took a new shape with the opening of the present century. This was partly due to a bold policy initiated by the State for training teachers, and partly due to the improvement of the character of primary education. So far as the State is concerned, it stressed the need for training teachers. In the new policy initiated by Lord Curzon, a great emphasis was laid on the training of primary teachers in general and of rural teachers in particular. Between 1901-02 and 1906-07 a large part of the Central grants was utilized for the provision of buildings, hostels and staff quarters, so that the general efficiency of training institutions improved very greatly. Refresher courses were also instituted.

This policy was further strengthened by the declaration in 1913 that "eventually under modern system of education no teacher should be allowed to teach without a certificate that he has qualified to do so."¹⁷ It also gave a directive to Local Governments to enlarge the facilities for training of teachers, and specially for primary schools.

2.17. With the rapid development in the primary education steps were taken to establish at least one normal school in each district by all the provincial governments. During the previous period, the State policy was to have one such institution in a division. Hence by 1921-22, the country had 1,072 primary training institutions with an enrolment of 26,931 as against 155 institutions with an enrolment of 5,405 in 1901-02. The total expenditure also increased from Rs. 7.12 lakhs in 1901-02 to Rs. 58.64 lakhs in 1921-22. This increase was shared by almost all Provinces. Madras now had 161 institutions; Bombay 43; Bengal 111; U.P. 471; Punjab 30; Bihar and Orissa 125; C.P. and Berar 18; and Assam 10. Steps were also taken to improve the institutions by providing better staff, buildings, equipment, hostels and practising schools. The percentage of trained teachers also increased from 18.4 in 1901-02 to 39 in 1921-22.

2.18. During the period, the objectives of primary education were broadened. Till 1870, a primary school was an institution, teaching little more than the three R's, and was no better than an indigenous school. By 1870, the character of primary education changed. The duration of the course was raised to five years, and the curriculum was also made

17. *The Government of India Resolution on Educational Policy*, 1913, para 51.

richer. The aim of primary education was to teach the child to read and write his own language; to obtain a sufficient knowledge of arithmetic and mensuration to enable him to do easy sums and to understand the simple forms of native accounts and the village map, to acquire a rudimentary knowledge of geography, agriculture, sanitation and of the history of his country; to train his faculties by simple kindergarten and object lessons; and to develop his physique by drill and exercise."¹⁸

Attention was also paid to better methods of teaching. It was laid down that an endeavour should be made to render the course less bookish and more practical, especially by the introduction of kindergarten methods and object lessons.

2.19. With the advent of such new concepts in the field of primary education, attention had to be paid to produce better teachers. It may be noted that the normal or training schools bifurcated in two types. The better type of institutions admitted candidates who had passed the middle vernacular examinations. They became teachers of vernacular in secondary schools or headmasters of vernacular schools. The second type of institutions turned out a less finished article as it accepted lower qualifications, and had a shorter course. Ordinary teachers in primary schools came out of the latter. The courses ordinarily consisted of some extension of the candidate's knowledge, the reading of a simple work on the principles of education, a considerable amount of drill in method, actual teaching under supervision and special lessons in drawing, black-board writing, map and globe making, etc. Nature study or rural science were generally included as a subject¹⁹.

The Fourth Period (1921-1947)

2.20. The period is marked by a number of fundamental changes in the professional preparation of primary teachers. In the first place, a policy of consolidation of training institutions was adopted. A number of provinces took a decision to discontinue small and inefficient units *e.g.*, 'classes' attached to middle schools in U.P. or the *guru* training classes in Bengal and Bihar and to replace them by regular normal schools of adequate size. The number of institutions, therefore, fell from 1,072 in 1921-22 to 649 in 1946-47. But their enrolment increased from 26,931 in 1921 to 38,773. This policy of amalgamation and consolidation also improved the efficiency of institutions. The percentage of training teachers also steadily increased during the period from 39 in 1921-22 to 64 in 1946-47.

18. *Progress of Education in India, 1897-98 to 1901-02*, Vol. I, p. 158.

19. *Progress of India, 1912-17*, pp. 165-66.

This was achieved inspite of the economic depression in 1929, as a result of which large cuts were made in the educational budget in all the provinces.

Another achievement of the period was the improvement in the quality of entrants to primary teacher training institutions. Formerly, the average entrant to the teacher training institution had completed only his primary school education. This qualification was considered too low now. For example, the Hartog Report pointed out that the minimum educational qualification required for admission to a normal school is the satisfactory completion of the middle school course. This was also supported by the Abbott-Wood Report. The Sargent Plant went a step further and suggested that 'Matriculation Pass' should be the minimum qualification for a teacher irrespective of the grade he teaches.

These opinions influenced the recruitment of primary teachers a good deal. With the expansion of middle school and secondary education and improvement in the salaries of primary teachers, the level of general education of the entrants to the profession began to improve. Indirectly, this movement improved the status of primary teacher training institutions. They were considered on par with the high school. In some provinces, they were even designated as 'Colleges'. The duration however varied in different provinces from one to two years.

2.21. With the advent of Basic Education in 1938, the training of primary teachers branched off into two streams—the first continuing the orthodox type of professional education, and the second training Basic teachers. Both the systems had their weaknesses and strengths, but both had assumed some definiteness. Attention was given to the study of general and professional subjects, discussions and other stimulating methods were used. Considerable time was also devoted to practice teaching and community work.

2.22. The need for providing in-service education to primary teachers was also being appreciated in the country. Practically all the important blue-prints of the period stressed the need for such a training. For example, the Abbott-Wood Report remarked:

If the spirit of training of those who have had some training before entering upon their work is to be kept alive and if their technical skill as teachers is to be improved, it is vital that they should have opportunities from time to time to attend refresher courses²⁰.

20. Abbott, A. & Wood, S. H. *Report of Vocational Education in India*, p. 26.

The Fifth Period (1947-1964)

2.23. Education took rapid strides during the post-independence periods. For instance, the number of primary schools increased from 1,72,661 in 1947 to 3,65,903 in 1963 - an increase of more than 100 per cent. The enrolment in classes I-V more or less trebled during the period— from 141 lakhs in 1947 to 415 lakhs in 1963. Education in the middle school (classes VI-VIII) also advanced from an enrolment of 20.4 lakhs in 1947 to 81.6 lakhs in 1963. The total number of teachers also increased. We had 4.06 lakhs of primary teachers in 1947 and 8.26 lakhs in 1963; and 4,20,744 teachers at the middle school stage in 1963, as against 72,413 in 1946-47. These statistics also show that the advancement at the middle school stage had been proportionately more rapid than at the primary stage.

2.24. Along with the quantitative expansion, there has been qualitative improvement too. And this could be achieved mostly through the impact of Basic Education. This education aims at the instruction of all boys and girls between the ages of six and fourteen. The elementary education, spreading over eight years, aims at an integrated course of education. It may also be noted that Basic Education has brought in revolutionary changes in the content of education. It is not dominated by the requirements of secondary education, but has been designed in terms of the child's needs and prepares him for social responsibility in life. The integrated eight-year course of Basic Education provides a standard of instruction, which is much higher than that offered by even the most advanced elementary schools of the pre-independence period. Finally, it has revolutionised the entire method of teaching at the elementary stage through creative activities related to the child's cultural, social and physical environment.

2.25. There has also been a gradual upgrading of the level of general education of the new entrants to the teaching profession at the elementary stage. During the preceding period, we were satisfied with 'middle pass' primary teachers. But the Sargent Plan had proposed the target that elementary teachers should have completed the high school. With the rapid advancement of secondary education and improvement of teacher's salary, this may be soon realised. The following extract sums up the present position regarding qualifications of elementary teachers in different States:

In States like West Bengal, Punjab or Kerala, no non-matriculate teacher is recruited. In States like Uttar Pradesh, Rajasthan or Madhya Pradesh, the male teacher is almost a matriculate; but owing to the non-availability of women teachers, middle passed women have often

to be recruited as teachers especially in rural areas. In States like Maharashtra the minimum qualification still continues to be a pass in the examination at the end of the middle school; but preference is given to matriculates who are readily available in adequate numbers.²¹

Taking India as a whole, therefore, it may be said that about 80 per cent of all new recruitment to the cadre of elementary teachers is of matriculates only. In fact, the recruitment of non-matriculates is now very largely confined to two groups: (1) women, and (2) scheduled tribes and castes.

2.26. Facilities for pre-service education of primary teachers have also expanded. The total number of institutions increased from 649 in 1946-47 to 782 in 1950-51, 930 in 1956-57 and 1,518 in 1962-63. Similarly, the enrolment of these institutions increased from 38,773 in 1946-47 to 69,416 in 1950-51, 83,467 in 1955-56 and 1,80,689 in 1962-63.

2.27. The Sargent Report had suggested a training programme of two years' and three years' duration for Junior Basic (Primary) teachers and Senior Basic (Primary) teachers respectively.²² But this target has yet to be achieved. Even today, several States and Union Territories provide a one-year course, not only for matriculates, but for middle pass teachers as well. The details of the courses also differ. But generally they include:

1. The theory courses in education, including the courses in methodology;
2. The practical courses of training, including craft-work, practice teaching, community living and community service;
3. The study of academic subjects.

2.28. The need for providing in-service education on a comprehensive scale has also been realised. The National Council of Educational Research and Training has taken a decision to organise extension services centres in training institutions for elementary teachers. Fifty such centres or approximately three such centres for each State have been established during 1963-64.

The programme of improving the training of primary teachers has been given a high priority in the Third Five Year Plan. The Ministry of Educa-

21. National Council of Educational Research and Training. *The Second Year Book of Education (Elementary Education)*. 1964, pp. 233-34.

22. *Post War Educational Development in India*. 1944, p. 85.

tion organised three seminars for studying the Education of Elementary Teachers in the country and to suggest suitable reforms. The seminars were held during following periods:

1. The First National Seminar on the Education of Primary Teachers (October 3-10, 1960);
2. The Second National Seminar on the Education of Elementary Teachers (October 7-12, 1963);
3. The All-India Seminar on the Elementary Teachers Training Programmes (November 25-30, 1963).

Elementary Teacher Education in India Today

THE COUNTRY IS reaching the end of the Third Plan and would soon be launching on the Fourth Plan period. Thus by 1966, we will be completing fifteen years of planned educational development. The constitutional deadline to provide free and compulsory education for all children between the ages of 6 to 14 is also very near. But that directive will remain a dream of the framers of our Constitution. The main difficulty is to provide adequate schooling facilities to these children, and these schools will need an army of teachers--equipped academically and professionally.

The Teachers We Need

3.02. Even those, who have been trained, need in-service education since their training was not sufficiently adequate and may prove out-of-date after some time. In 1960-61 the country employed about 9.1 lakhs of primary and 2.3 lakhs of middle school teachers, *i.e.*, a total of 11.4 lakh elementary school teachers. Out of these only 7.4 lakhs have undergone some kind of teacher preparation programme, pre-service and in-service. It means that 35 per cent teachers, or approximately one teacher in every three, have no professional preparation. By 1963-64, 66.3% of the primary school teachers and 72% of the middle school teachers were trained, *i.e.*, only 3 out of 10 were still untrained. The position in all the States is not similar as Table I would indicate. Some states are showing even retrogression of late in the percentage of trained teachers. Examples of such inability to keep up the tempo of training teachers faster than appointing them are Uttar Pradesh and Orissa. On the other hand Madhya Pradesh and Gujarat are examples of very quick progress, though they still have a lot of ground to cover.

3.03. It was expected that by 1965-66 at least three-fourths of the elementary teachers would be trained. This target is not likely to be achieved. On the other hand, this is going to be further affected by the fact that as against the anticipated enrolment of 16 lakhs of additional children in the elementary schools as many as 25 lakhs are likely to be enrolled during the Third Plan period.

3.04. On the basis of fresh enrolments and allowing for a wastage of 10 per cent and retirements to the extent of another two per cent, the

future requirement of additional teachers has been estimated according to details given below:

TABLE I

TRAINED ELEMENTARY TEACHERS

States	Percentage of trained			
	Primary Teachers		Middle School Teachers	
	1960-61*	1963-64	1960-61 ²	1963-64
Andhra Pradesh	82.9	90.0	77.0	80.0
Assam	39.3	44.0	25.9	28.0
Bihar	71.2	75.0	63.6	72.7
Gujarat	35.6	42.1	54.3	62.3
Jammu & Kashmir	54.1	54.7	56.7	60.2
Kerala	90.8	90.4	77.9	84.2
Madhya Pradesh	51.0	74.4	50.8	67.3
Madras	95.9	96.1	96.5	97.1
Maharashtra	49.8	54.5	72.8	80.1
Mysore	43.4	46.5	61.3	65.8
Orissa	38.5	49.6	33.9	29.0
Punjab	92.1	89.3	90.6	88.4
Rajasthan	50.8	62.3	50.3	57.9
Uttar Pradesh	74.8	59.0	77.8	75.0
West Bengal	38.1	38.3	14.8	16.3
TOTAL	60.6	66.3	60.3	72.0

Thus maximum annual requirement would vary from 2,36,000 to 5,87,000 depending on the size of the class and the targets to be reached. It would be safe to assume that the additional requirement would range between three to four lakhs of teachers every year. This would also help to liquidate the backlog of untrained teachers. It may be noted that today the capacity of the existing elementary teacher education institutions is about 1,20,000. Hence the existing training facilities will have to be increased three times. These will have to be provided near the teacher's home and specially in rural areas, since real India is in her villages and city teachers are not willing to serve in rural areas. Thus about three-fourths of the training institutions will have to be located in rural areas.

* *The Second Year Book of Education*. New Delhi: National Council of Educational Research and Training, 1964, p. 235.

3.05. There is another difficulty, which will have to be reckoned with. The normal duration of the training course for matriculates is one year. This has been considered inadequate not only by educationists but also by a number of authoritative bodies—in and outside India. Many of our witnesses hold the same view. Thus it will be necessary to replace the existing training course for the matriculates by a two year programme wherever it is not so.

TABLE 2

TOTAL NUMBER OF ADDITIONAL TEACHERS REQUIRED (1965-75)*

Assumption about enrolment by 1975-76	Total number of additional teachers required during 1965-75 on the basis of pupil-teacher ratios of				Annual requirements of additional teachers during 1965-75 on the basis of pupil-teacher ratios of				Enrolment needed in training institutions on the assumption of pupil-teacher ratios of			
	35:1	40:1	45:1	50:1	35:1	40:1	45:1	50:1	35:1	40:1	45:1	50:1
	(in thousands)				(in thousands)				(in thousands)			
I. 100 per cent in age-group 6-11 and 50 per cent in age-group 11-14	2,007	1,611	1,306	1,061	201	161	131	106	447	353	291	236
II. 100 per cent in age-group 6-11 and 75 per cent in age-group 11-14	2,322	1,886	1,550	1,281	232	189	155	128	516	420	344	284
III. 100 per cent in age-group 6-11 and 100 per cent in age-group 11-14	2,637	2,161	1,794	1,501	264	216	179	150	587	480	398	333

Left to their own resources, perhaps it may not be possible for all the State Governments to come upto the mark. Central assistance will thus be necessary for supplementing their resources. Similarly institutions admitting middle pass candidates provide at present two-year courses.

* *The Second Year Book of Education* (1964), p. 249.

These will have to be raised to three years' duration. Thus along with the quantitative aspect, we are confronted with the qualitative aspect as well.

3.06. The Planning Commission's Co-op Team on Teacher Education estimated that a training school with 100 students and 8 staff members with 5 acres of land etc. will involve an expenditure of Rs. 2.59 lakhs non-recurring and Rs. 74,000 recurring. But the majority of the institutions are spending from Rs. 10,000 to Rs. 50,000 only per year. The team also found that the capital expenditure is far below the minimum and that adequate playground and facilities for other activities do not really exist in these institutions.* The majority of training schools are residential institutions.

This merely indicates the immensity of the problems and the amount of money required for the implementation of an adequate programme.

The Existing Pattern of Courses

3.07. There is at present a great diversity in the kinds of courses for the training of elementary teachers. The admission qualifications also vary according to the type of institutions. Entrants to these courses range from Middle pass candidates to graduates, though matriculates form the majority. Every State has its own individual programmes, and the details vary according to each State. These can be summarised thus:—

1. At present many institutions admit matriculates and prepare them through a one or two year course. In some States like Uttar Pradesh however, matriculates are admitted in the institutions for middle passed candidates and well as undergo two year preparation.
2. Elsewhere middle pass candidates are admitted to work with the matriculates.
3. Though the general qualification is matriculation, it is lowered for certain categories of candidates like scheduled castes, backward classes or women. This is highly unsatisfactory.

3.08. Recently there has been a tendency to employ a few graduates as teachers or headmasters, but there is no special provision for their training. They are generally trained in post-graduate basic training colleges or university departments of education. But while the latter are not at all designed for elementary education, the former pay some attention. However the main purpose of the post-graduate basic training colleges has by and large been to train elementary teacher educators and supervisors or inspectors of elementary education rather than elementary teachers.

* *Draft Report on Teacher Training.* New Delhi: Ministry of Education, Government of India, 1963, p. 21.

There are also a few institutions in Uttar Pradesh and elsewhere, which award Teaching diplomas or certificates. They admit Intermediates and give them one-year teacher education.

3.09. Thus there are about seven types of institutions preparing or at least providing teachers for the elementary stage. They admit candidates of various calibre and impart different programmes. The durations of courses are not the same. The details are given in the following table:

TABLE 3

DIFFERENT TYPES OF TRAINING PROGRAMMES

<i>S. No.</i>	<i>Admission Qualifications</i>	<i>Duration of Training</i>
1.	Graduate	One year (non-basic)
2.	-do-	One year (basic)
3.	Intermediate	One year
4.	Matriculation	Two years
5.	-do-	One year
6.	Middle	Two years
7.	-do-	One year

Except for category 1 and 2 which in many cases are under the academic control of the universities, all other training courses including some of the post-graduate training courses are departmentally controlled and operated.

3.10. The majority of institutions are run by the State, though some of the institutions are conducted by private bodies—aided and unaided. This will be evident from Table 4.

3.11. It may be noted that about nine-tenths of direct expenditure on elementary teacher training institutions comes from government funds, about half of the rest from fees and the balance from endowments and other sources. The contribution of local bodies is negligible.¹

Stipends are not given to all the candidates. This is again a weakness of the system. Similarly when teachers in service are deputed for training, there is no uniform system of study leave and allowances for them. In some of the States, the trainees are charged tuition fees.

¹ *Education in India, 1959-60, Vol. I* (Ministry of Education, Government of India), p. 186.

Programme

3.12. The majority of institutions preparing elementary teachers at the under-graduate level have already been converted to the basic pattern. Whether or not they are full-fledged basic is another matter. Even then they have uniformly adopted certain features of basic training, *viz.*, craft-work, community living, community service, etc.

TABLE 4ELEMENTARY TRAINING SCHOOLS BY MANAGEMENT¹

State/Territory	For Men		For Women		Total		Increase (+)	Decrease (-)	Government	Local Boards	Private Bodies	
	1958-59	1959-60	1958-59	1959-60	1958-59	1959-60					Aided	Unaided
Andhra Pradesh	70	86	36	43	106	129	+ 23	93	..	36	..	
Assam	29	29	5	6	34	35	+ 1	16	12	4	3	
Bihar	70	85	17	23	87	108	+ 21	84	..	22	2	
Gujarat	*	43	*	16	*	59	*	28	..	27	4	
J. & K.	6	7	2	2	8	9	+ 1	9	..	..	..
Kerala	44	59	10	17	54	76	+ 22	29	..	46	1	
M. P.	50	42	8	7	58	49	- 9	46	..	3	..	
Madras	79	7	58	18	137	25	-112	6	..	19	..	
Maharashtra	132	119	55	42	187	161	+ 33	48	3	81	29	
Mysore	20	21	4	4	24	25	+ 1	15	..	10	..	
Orissa	55	66	3	4	58	70	+ 12	68	..	2	..	
Punjab	14	15	8	8	22	23	+ 1	16	..	2	5	
Rajasthan	26	37	2	2	28	39	+ 11	38	..	1	..	
U. P.	88	129	20	27	100	156	+ 48	121	1	6	28	
West Bengal	45	51	10	10	55	61	+ 6	45	1	15	..	
A. & N. Islmads	1	1	..	..	1	1	..	1	..	..	..
Delhi	1	1	1	..	2	1	- 1	1	..	..	..
Himachal Pradesh	2	2	..	..	2	2	..	2	..	..	..
Manipur	2	3	..	..	2	3	+ 1	3	..	..	..
N.E.F.A.	1	1	..	..	1	1	..	1	..	..	..
Tripura	..	1	..	..	..	1	+ 1	1	..	..	..
INDIA	735	805	239	229	974	1,034	+ 60	671	17	274	72	

* Included against Maharashtra.

¹ *Education in India, 1959-60, Vol. I (Ministry of Education, Government of India). Table LXXVII, p. 183.*

3.13. All two-year programmes and even the one-year programmes (for matriculates and middle passed candidates) occasionally provide content courses which are compulsory for all candidates. These courses, however, take no notice of the previous preparation of the candidates. There is a dead uniformity. The result is that while the courses are mere repetition for some, for others the target is very high. The programme generally covers the existing matriculation course and does not aim at anything beyond. It however makes a provision for teaching crafts. Art, physical education and occasionally music are also provided. Sufficient attention is, however, not paid to the content courses of science and crafts.

3.14. The pattern of practice teaching is similar in most parts of the country. The student teachers teach in primary or middle school under the supervision of the training school staff. Very little responsibility, if any, is relegated to the staff of the practising school. Difficulty of adequate number of practising schools in the close vicinity is acutely felt. In some areas, *e.g.*, in M.P. and Punjab it is solved by moving the students and staff to the neighbouring areas for this purpose. Elsewhere classes in the practising school are divided into smaller units, and this reduces the number of pupils in each unit to about half a dozen only. This is a sheer mockery of practice teaching.

3.15. In many States, students are required to give specified number of ordinary and correlated lessons. Similarly they are also required to take multiple classes. It has not been indicated whether one student teacher takes up the full charge of a class or classes for any length of time. In some areas a number of pupil teachers take full charge of a class or a school between themselves. This is how they get a real experience of class room teaching and other activities of the school.

3.16. The student teachers are taken out either for a block period or at regular intervals over a period of time for community service. Besides adult literacy work, they participate in many activities of the community development department. In fact, in quite a few States teachers are expected, particularly in the rural areas, to help the community development work. It is hoped that such a community service, besides awakening a sense of social responsibility, love of manual work, etc., will serve to prepare them for their future duties.

3.17. Steps have, however, been taken in a number of States during recent years to specify the aims and objectives of each paper in the prescribed courses. But while the majority of syllabi have both content and professional training as part of the programme, a few indicate only the requirement of professional preparation. A notable feature of the West Bengal syllabus is its absence of rigidity. It is merely indicative and suggestive, leaving

the training institutions free to adopt the syllabus according to their needs, while confining themselves within the general framework. It is also regrettable that the prescribed syllabi in a number of States do not provide a list of books to be used by the trainees or teacher educators.

Selection and Admission of Trainees

3.18. Admission to the institutions preparing elementary teachers is through a selection based mainly on previous academic qualifications. This is universally supplemented by an interview by a small board consisting of the officers of the Department of Education. In some places, an admission test has also been introduced to supplement the above two devices. Certain seats are reserved for scheduled castes/tribes and backward classes.

In some areas like Orissa, however, the teachers in service are deputed and do not have to pass through the selection procedures. The selection takes place at the time of their first appointment as teachers.

In some of the areas, there is no fixed date for admission. The candidates are admitted and continue to join three to four months after the session has started.

Instructional Staff

3.19. Just as the education in school depends largely on the quality of the teacher, so the quality of teachers would depend on the teacher educators. The staffing pattern in different states varies according to the status of training programme, *e.g.*, in the Certificate of Teaching (post intermediate) the staff has post-graduate qualifications with a degree or diploma in education. However, in general the elementary training school is staffed by trained graduates. There are also a few undergraduate instructors in some states like Assam, Orissa and Uttar Pradesh. Since the present policy in many states is to restrict admission to Matriculates only, there is an improvement in the teaching staff. For instance, in the Madhya Pradesh a few post-graduates are appointed in every normal school. Similarly Rajasthan has provided a scale of salaries, intermediate between the graduate and post-graduate scales, for training institutions. This has made it possible to appoint post-graduates as instructors.

3.20. The lecture method appears to be the general rule for imparting instruction to the trainees. In some of the states, the methods to be followed at the training institutions are indicated. Lecturing is to be eschewed and methods are to be closer to the methods that the teachers have to adopt in elementary schools, *e.g.*, "Trainees are expected to have sufficient practical experience during the course of training which will have a direct bearing on their future work—both as teachers and social workers.

Different subjects should therefore be taught as far as possible through life situations and craft and creative activities."¹

3.21. The qualifications of the craft instructors also present a great diversity. While some states insist that every craft teacher, besides having qualifications in craft work, should be either a trained graduate or at least a professionally trained teacher, others do not lay down such conditions. Who will make a good craft instructor and educator? It will also depend on whether or not this staff is to be utilised in supervision of practice teaching, particularly correlated teaching. Similarly, the physical education instructor may not be a graduate. The general practice is to employ a matriculate with a certificate in physical education.

3.22. The staff-pupil ratio varies from State to State. It ranges from 1:10 to 1:40, the average being 1:20. It also differs according to the method of calculation, *i.e.* whether or not the principal and craft instructors are included in such an estimate. Out of 42 or 48 working periods per week, the load of work varies for teacher educators from 28 to 40 periods a week. Calculation of work load is rather erratic, because there is no standard way of calculating load of work for items like discussion of lesson plans, supervision of community life activities, supervision of community service activities, etc. In general one thing is clear that the teacher educator is more over-worked than his counterpart in the secondary school. Hence the flight from these institutions to the secondary schools. This is more prevalent in government service.

Examination System

3.23. The examination in theory and practice is still by and large external. The Department of Education has a special officer to conduct these examinations. He is also the authority for prescribing courses and schemes of work. However, he is assisted either by ad-hoc committees as in Punjab, Uttar Pradesh, Gujarat or by a regular board of committee, *e.g.*, Basic Education Board in Andhra Pradesh and West Bengal, and Board of Secondary Education in M.P.

The prescribed syllabi of all the States indicate full details of evaluation. The external examination plays the decisive role, but a system of internal evaluation is slowly creeping in. In the total assessment, weightage to class-record is given to the extent of 50 per cent in Bihar, 40 per cent in Andhra Pradesh, 35 per cent in Gujarat, and 25 per cent in Punjab and Madhya Pradesh.

1. West Bengal.

The community service and craft work are mostly internally assessed. In practice teaching, M.P. and Rajasthan have 50 per cent internal assessment while elsewhere the head makes his recommendations to the panel of examiners of practice teaching.

Inspection

3.24. The training institutions are liable to inspection by Departmental Officers of the level of the District Education Officer and above. Usually district officers and regional deputy directors inspect these institutions. At times, inspection is done by a panel of inspectors. The post-graduate institutions are generally inspected by a deputy director or director of education. It may, however, be noted that the Universities are not directly involved in such an inspection. Criteria for inspection are yet to be evolved. Certain items are no doubt laid down by each Department of Education for the guidance of the inspecting staff.

In most States, there is an officer of the rank of the Deputy Director incharge of teacher education and a similar officer incharge of elementary education. But below them there are no separate officers for teacher education, at the divisional or district level.

Cost of Training Teachers

3.25. It is found that the training institutions are spending below the optimum. In fact the expenditure on teacher preparation has been going down. For instance the expenditure in primary education during the first twelve years of the independence rose from Rs. 18.5 crores to Rs. 63.6 crores but the expenditure on teacher preparation rose from Rs. 91 lakhs to 255 lakhs only *i.e.*, it fell from 4.9 per cent to 4 per cent.

The cost per pupil teacher for different States and areas of the country are given in Table 5.

Relationship of Elementary Teacher Training Institutions to Other Agencies for Teacher Education

3.26. In the country as a whole there are very few centres where elementary and secondary teachers receive their professional education side by side. Even where it is done, there is no co-ordination and the instructional staff of the two branches remains in isolation. Thus there is no impact of the senior staff on the elementary course.

3.27. Similarly the universities and their faculties or departments of education have ignored the professional preparation of elementary teachers. They do not recognise this as a part of their function. Partly, this is due to tradition and partly because the elementary training courses were

designed for non-matriculates. Some of the universities, however, occasionally organise certificate courses below the degree level.

TABLE 5

TEACHER TRAINING SCHOOLS IN THE DIFFERENT STATES OF INDIA—1960-61*

(Rupees in thousands)

<i>States</i>	<i>N. of institutions</i>	<i>Enrolment</i>	<i>Government funds</i>	<i>Cost per pupil (in rupees)</i>
Andhra Pradesh	.. 137	14,975	2,682 (91.4)	196.0
Assam	.. 36	2,318	767 (97.2)	340.5
Bihar	.. 122	16,860	5,219 (97.8)	316.5
Gujarat	.. 78	8,184	1,663 (83.4)	243.7
Jammu & Kashmir	.. 10	613	689 (100.0)	1,123.3
Kerala	.. 80	5,759	736 (78.2)	163.6
Madhya Pradesh	.. 46	5,340	3,421 (98.8)	648.5
Madras	.. 23	3,061	246 (69.6)	115.5
Maharashtra	.. 176	18,771	3,913 (76.2)	273.7
Mysore	.. 24	2,576	1,558 (93.4)	647.7
Orissa	.. 82	4,741	639 (98.5)	137.0
Punjab	.. 26	2,943	588 (80.9)	246.9
Rajasthan	.. 55	6,458	3,031 (93.7)	501.0
Uttar Pradesh	.. 155	13,619	5,103 (94.4)	396.9
West Bengal	.. 6	2,789	602 (89.0)	242.3

It may be noted that the present cost for a pupil teacher in Bihar, Gujarat and Jammu and Kashmir is Rs. 300/-, Rs. 600/- and Rs. 1,900/- respectively.

* *The Second Year Book of Education* (1964), pp. 269-270.

3.28. According to the recent scheme of the Ministry of Education, a State Institute of Education (SIE) has been established in each State. At the moment the S.I.Es are concentrating their attention on the inservice education of elementary teacher educators and administrators and supervisors, *i.e.*, they are concerning themselves with the agencies that prepare and supervise the elementary teacher. They will also directly work with the elementary teacher by preparing handbooks for him, by bringing out pamphlets and journals for him, by studying his work and duties and suggesting how he can function more effectively.

Conclusion

3.29. The training of elementary teachers needs both quantitative and qualitative improvement. We want not only more teachers but better teachers for our elementary schools to meet the challenging needs for the Fourth Five Year Plan and subsequently which aim at bringing all boys and girls in the age-groups of 6-14 to the school.

The existing programmes aiming at professional preparation of our elementary teachers are as diverse as the country itself. They are not what they should be. Their improvement and extension are a challenge to the educationists and teacher educators of this country.

CHAPTER IV

The Present Position of Teacher Education at the Elementary Stage in India

Introduction

THIS CHAPTER aims at presenting an analysis of the existing position in the field of teacher education at the elementary stage. This has been based on:

1. A study of existing programmes in training institutions of various states and territories in the country;
2. Recommendations made at the First, Second and the Third National Seminars on Teacher Education at the elementary level held at Delhi in 1960 and 1963 respectively; and
3. Evidences collected by the Committee through questionnaire, interviews and visits to institutions.

General Comments

4.02. Although the current tendency is to organise teacher training programmes for elementary schools on the Basic pattern, yet it is found that the traditional approach is being followed in some States parallel to the Basic system.

Even though the Basic training programme in principle advocates an integrated approach based on experience and activities, yet a study of different syllabi reveals that this objective is yet to be realised in many cases and consequently the training programmes have continued to be traditionalistic

The three national seminars held so far, appear to have made no significant impact on the existing teacher education programmes.

The programmes reveal a great variety in content and organisation, in the method of operation, duration of the course, admission requirements, staffing patterns, practice teaching, assessment procedures and even in aims and objectives. Although the Basic pattern seems to be the goal of all the syllabi, a national pattern of teacher education programme with adequate flexibility to meet the local demands is yet to emerge.

Aims and Objectives

4.03. While discussing the aims and objectives of teacher training programmes laid down in different syllabi, the First National Seminar felt that those have either been not specifically mentioned or even if a mention has been made, the same are not in specific terms. It was further held that the majority of syllabi had followed more or less the pattern of training originally recommended by the Hindustani Talimi Sangh.

The Third National Seminar held in 1963 also examined this pertinent issue and recommended the adoption of the following aims and objectives by the Elementary Teachers' Training Institutions:

1. To train a new type of teacher in the theory and practice of Basic Education, which aims at the integrated development of the 'whole child' through craft and creative activities and life situations according to individual needs, aptitudes, abilities, and interests in order to enable the child to adjust to a democratic society based on truth, co-operation and dignity of labour.
2. To enable the trainees to organise a school as an educational, cultural and social centre for the whole community with the child as the pivot of the educative process, as the teacher has to function as the educational leader of the village community.
3. To give the trainees an experience in democratic community living and organising such life. To achieve this the elementary teacher education institution should function as a happy, free, self reliant, democratic and productive community engaged in the task of learning and should become the spear-head of a silent social revolution. In other words the social objectives and the ideals of citizenship, inherent in Basic Education should be kept in view as the final task for the teachers after training.
4. Adequate efficiency in Art and Craft work.
5. Comprehensive and intelligent understanding of correlated teaching. It should however be clear to the student-teacher that forced correlation is worse than no correlation.
6. Adequate standard of professional efficiency including a positive attitude towards life, society, children and the profession of teaching.
7. To develop the teachers' personality, physical, intellectual, aesthetic and spiritual, to achieve a well integrated balanced personality.¹

4.04. It is rather hasty at this stage to trace the effect of those

1. Central Institute of Education. *Report of the All India Seminar on the Elementary Teacher Training Programme*, New Delhi, 1963, p. 5.

recommendations on the syllabi of different States. However two comments on aims and objectives as enumerated in different syllabi of the country are presented here. In the first place, while most of the syllabi do not make any specific mention of the aims and objectives, a few of them have defined the objectives of teaching of different subjects without mentioning the general aims and objectives for the whole course. In the second place, some of the syllabi have given the aims and objectives in rather vague terms *e.g.*, to give an understanding of the importance of Basic Education under the new democratic social order based on truth and nonviolence and 'to train a new type of teacher cum social worker in the theory and practice of Basic Education which aims at the integrated development of the 'whole' child through craft and creative activities and life situations according to individual needs, aptitudes, and abilities and in their turn to enable the child to adjust to a democratic society based on truth, co-operation and dignity of labour'. Such statements lack the pointedness which is necessary to give lead to the methods adopted to achieve the same. Such general objectives should further be spelt out in terms of specific achievable goals and in terms of specific competencies that our teachers at the elementary stage need at present. It is gratifying to note that this was done by the Third National Seminar on Teacher Education.

4.05. It will now be necessary to examine the issue in the light of the evidence collected by the committee. It may be noted that most of the respondents have lent support only to the objectives laid down in the syllabi prevalent in their individual state. The emphasis however has been on the objective 'to equip the student teacher professionally for his work, to enable him to understand and meet the physical intellectual and emotional needs of the children from class I to VII'.

A few respondents, with a view to giving social direction to school education, propose to lay emphasis on the practical aspect of the training and to link the training programme with the development of the community through co-operative enterprise and accordingly suggest that the training institution should address itself to the task of giving such practical experience to the trainees. This would imply that the training programme in addition to giving professional skills should aim at giving necessary skills, knowledge and attitudes enabling them to bring about social change through education.

4.06. The following specific requirements have been cited by one or other of the interviewees at different places. These deserve mention in consideration of the special needs of our times:

1. The elementary teacher should be trained in multiple class teaching and for handling large classes;

2. The aim of elementary teacher training should be the development of the child in democracy, hence the need of democracy and democratic citizenship should be emphasized through integrated approach;
3. The teacher training should aim at the development of the total personality of the teacher;
4. The training programme should maintain a balance between classroom and out-of-classroom functions of the teacher; and
5. The student-teacher should be trained in health education.

Admission Requirements and Duration of Course

4.07. Proper equipment of teachers in respect of professional education and academic learning is a pre-requisite for any good school improvement programme. While the academic equipment of student teachers has to be taken into consideration at the time of their admission to the pre-service education, the duration of the course has to be adjusted according to the programme of professional preparation. The two national seminars on teacher training at the elementary level have rightly recognized that the fact that the present practice of one year courses is insufficient and should be replaced by two year courses as quickly as possible. These seminars also strongly felt that the minimum qualification for admission into the pre-service course should be the Matriculation or an equivalent (not less than 10 years of schooling) and should be raised to the Higher Secondary Certificate as soon as possible.

4.08. A perusal of the practices now being followed in the different states in this respect, reveals that most of the States provide for two years courses with 220 working days for each year and have prescribed Matriculation as the minimum qualification for admission. This will go a long way towards improvement of teacher preparation at the elementary level. The rest of the States have still one year courses and the admission requirements vary from middle to Matriculation with relaxations for scheduled castes, scheduled tribes, women candidates and in some cases for students belonging to the rural areas and untrained teachers already in service in the schools.

This lack of uniformity in the duration of the courses and also in the admission requirements stands in the way of having a national standard of teacher preparation at the elementary level and also stands in the way of mobility of teachers from State to State. It may further be noted that this lack of uniformity results in an unbalanced influx of candidates to the courses having shorter duration from places where the duration is comparatively long.

The evidence on this issue collected by the Committee reveals that :

1. The duration of the course should be two years for matriculates and four years for non-matriculates;
2. The practice of a combined course for matriculates and non-matriculates should be given up and the duration of course for non-matriculates should be longer than that for matriculates. This will enable the former to acquire knowledge of subject content besides the knowledge of teaching methods;
3. The two year course for matriculates should be treated as equivalent to Intermediate (Arts or Agriculture) for purposes of employment and further education;
4. That Vidya Vinodini or similar qualifications which do not provide regular schooling, should not be considered equivalent to the Matriculation for purposes of admission to the training courses as in that case it would be difficult to bring in uniformity in the academic standard of the teachers.

It will thus appear that opinion is very strong in favour of raising the qualifications for admission to at least a Pass in the Matriculation examination and to have a longer period of training. It will also be evident that a part of the extra time should be given to the treatment of the content in the school subjects.

Types of Training

4.09. The existing elementary teacher training courses for matric and non-matric teachers can be broadly categorized under four major heads, *viz.*, (a) two year post-matriculation, (b) one year post-matriculation, (c) two year post-middle, and (d) one year post-middle. The last three categories have been meeting with serious criticism throughout the country.

It is generally felt that one year post-matriculation course is not long enough to initiate the future teacher into the teaching profession with necessary knowledge, skills and attitudes, which can develop only in a free and active environment where the trainees have sufficient initiative and adequate time and opportunity to consolidate, to ponder, to do reflective thinking, to use library and to experiment with new ideas. But during the one-year course an attempt is made to impart only the tricks of the trade with little or no attention to the enrichment or remedial work in subject content. The tendency to include every thing except subject content in the one year course as essential results in a heavy programme which is somehow rushed through. It fails by and large to develop the necessary insight into the teacher's future work. The inter-relationships

of the different subject matters are not discovered, facts are memorized and learnings are seldom internalised. As a result the whole one year programme loses its functional use and therefore becomes ineffective and sterile.

The one year post-middle course should be forthwith abolished. The two year post-middle course needs reorientation in view of the fact that the student teachers undergoing such courses have inadequate knowledge of the subject content. Efforts have, therefore, to be made to provide an enrichment programme in content of school subjects along with professional preparation. This cannot be done in a period of two years.

4.10. The following views have been expressed by the respondents to the questionnaire and interviews on this topic.

1. In view of the shortage of trained teachers in most of the States, the duration of the post-matriculation courses may be allowed to remain one year. Provision may however, be made for a year of in-service training to supplement it.
2. In regard to a suggestion that there should be a four year post-middle course, it has been felt that this course will be too long and therefore, it will keep away good candidates, especially ladies, from joining this profession. It has, therefore, been suggested that the duration of such courses may be of three years, with provision for in-service training for a year to supplement it.
3. In view of the limited knowledge of subject content on the part of middle pass candidates, some witnesses have been critical of admitting such candidates to the training courses.
4. Evidence is greatly in favour of prescribing a pass in the High School Examination as the minimum qualification for entry into training institutions although some relaxation has to be made to attract more women to the profession.

The national seminars referred to earlier also recommended a two year course for Matriculate candidates. The objective was proposed to be achieved by all the States by the end of the Third Five Year Plan. It would appear that this objective is yet to be achieved.

The Selection of Trainees

4.11. The procedure for selection varies not only from State to State but also within the State itself. In the States when the requests for admission fall short of the number of places available in the training institutions, selection becomes unnecessary and impracticable. In some States, selection becomes a mere formality in view of the rather large reservations allowed to

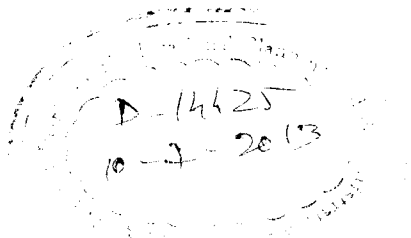
candidates belonging to different categories like the scheduled castes and tribes, bonafide residents of rural areas and sons and daughters of military personnel etc.

A few States select candidates and the most common procedure adopted is the interview. It is often preceded by a written test, which takes the form of essay and/or objective type tests. Some institutions administer aptitude tests in addition. These are, however unstandardized tests. In the interview weightage is given to academic standing, participation in extra curricular activities and meritorious social services in addition to personality qualities. Those who are deputed by local authorities come with teaching experience.

The following suggestions were made to the committee by the respondents and the interviewees:

1. Aptitude tests should find a place in the methods of selection;
2. Marks obtained by the candidates in the last public examination should be a determining factor;
3. Candidates with teaching experience should be given preference;
4. Candidates' skill in crafts should be given due consideration;
5. Due regard should be given to the candidates' participation in extra curricular activities;
6. Candidates who have passed their Matriculation examination with subjects like Science and special English should be given preference;
7. Other things being equal, women candidates should be given preference;
8. Reservation of seats should not be ordinarily allowed and in no case should it exceed 20 per cent of the available places;
9. Proficiency in games and sports should be given due regard;
10. Teacher's wards should receive preferential consideration;
11. Interviews and written tests should be preceded by an extension camp, where the capabilities and likings of the candidates should be identified and rated;
12. The age limit for admission should be 16 to 40.

A perusal of these various suggestions would reveal that there is unanimity of opinion on the need for selection and that the consensus is against having any rigid reservations. It is to be recognised that teaching in the elementary schools requires special skills besides a deep understanding of the needs of children and their development. The quality of teaching, therefore, depends on the personal and social qualities of the teacher. This also suggests that there should be a proper selection of candidates for admission to the training institution.



Curriculum

4.12. A study of the present syllabi reveals that almost all the syllabi include subjects like theory of education, the methodology of teaching, some knowledge of subject content, community life activities and extension work, and arts and crafts. An analysis, as detailed below, will show that even though the general framework of papers is almost similar, courses do differ in the details of content. There is also difference in approach and in emphasis laid on subjects. We may discuss the syllabi under two headings:

1. Theory

This includes:

- (a) Theory of Education (including principles of Basic Education and Educational Psychology);
- (b) Methodology of Education; and
- (c) Knowledge of Subject Matter.

2. Practical

This includes:

- (a) Practical of Teaching;
- (b) Arts and Crafts (in some cases music also); and
- (c) Community work and social welfare activities.

Theory

4.13. This course has the above mentioned three sub-headings in almost all the syllabi. The majority of syllabi mention methodology as a separate entity. A few syllabi also provide for teaching subject matter to the trainees, specially in the case of non-matriculates.

Theory of education in most cases includes the following papers:

1. A full paper on psychology in which child psychology and educational psychology are generally combined. A few courses however stress on educational psychology only. Some courses have combined educational psychology with some other paper.
2. Principles of education is generally provided as a full paper but there are a few courses which offer it as a half paper only. This paper also deals with principles of Basic Education.
3. A few courses provide for the History of Education as part of a paper and in some cases also as a full paper.

4. School Administration and Organisation is generally allotted one full paper.
5. Some courses also provide for Modern Trends in Education as a separate paper.
6. Rural Social Problems, Rural Science, Principles of Community Life and Social Education are combined with other papers in some courses and are even omitted in others.
7. Hygiene or Health Education is generally given scant attention, and wherever provided is combined with Physical Education to form one paper resulting in inadequate attention to both the subjects.

4.14. In the courses on methodology of teaching, two distinctive features may be noticed: (1) Some of the courses provide for general methods of teaching as a separate paper, while others have methodology of the school subjects as separate papers and in one case methodology has been combined with Principles of Education; and (2) the methodology of teaching craft and art is not found in any syllabus although skill in crafts is emphasized in all syllabi. Some courses have also prescribed targets of attainment in crafts.

4.15. The courses for the study of school subjects are generally not provided in the syllabi and wherever provision has been made, it has been allotted half a paper, the other half being given to the method of teaching that subject. Only a few courses however provide for separate papers on school subjects. The syllabus for Madras has prescribed a course in subject-matter but has not given significant place to it in the system of examinations.

4.16. It may be noted that the First National Seminar suggested that while there may be variations according to local conditions, the following areas of theory should be covered in the syllabus: (1) Principles and Practice of Education; (2) Educational Psychology and Child Development; (3) Methods of Teaching and Content of School subject: (a) Languages, (b) General Science including Health Education, (c) Social Studies inclusive of Community Development, (d) Mathematics; (4) School Organisation and Administration; and (5) Community Living and Extension Services.

4.17. The Third National Seminar, however, suggested that the present approach to structuring curriculum in terms of isolated subjects may be given up and an integrated approach of teaching of pedagogical subjects may be adopted. The advantages of integrated approach as held by the Seminar, are: (1) Since all these isolated subjects lead but to one goal of

attempting to enable the teacher to make his teaching effective, no water-tight compartmentalisation could exist; they should therefore, be taught as an integrated whole; (2) Integrated teaching of these subjects would help removing a great deal of overlapping of the similar topics appearing under the different subjects; (3) The integrated approach of teaching the pedagogical subjects had a distinct advantage of establishing relationships between the educational situations, activities and experiences arising out of the school life and the principles propounded under the various subjects; and (4) Such an approach would help the teacher in solving his problems and enable him to make his teaching more effective, purposeful and realistic.

The possible shortcomings of an integrated approach were also not lost sight of. For instance, the Seminar felt that integrated approach might have certain essential concepts untouched as it would lay more emphasis on actual practical situations and thereby render the imparted knowledge incoherent and unsystematic. As a safeguard against this danger it was felt that lectures on related topics on Psychology of Education, Principles of Education and School Organisation and General Methods, may be provided to systematize and supplement the integrated teaching. Having paid due consideration to the possible handicaps and the relative merits and demerits of the approach, the following syllabus in theory of education was presented¹.

(A) **Meaning of Education**

1. Concept of education
2. Concept of Basic education
3. Aims of Basic education
4. Principles of Basic education

(B) **Child**

1. Understanding the child and his developmental needs—physical, intellectual, emotional, social and moral—methods of child study
2. Stages of growth
3. The influence of environment on the educative process
4. Child—interests and endowments

1. *Ibid.* p. 13.

5. Learning and motivation
6. Individual differences—causes
7. Education through work as the basis of the integration of personality

(C) **School**

1. Agencies of education—the school, the home and the society
2. School as a self governing and democratic community
3. Organisation of school programmes to realize the objectives of education
4. Specific function of the Headmaster—technique of supervision
5. The role of a teacher in and outside the school community
6. School relationship—among the students, the teacher and the taught, and teacher and parents and the teacher and society
7. Staff meetings
8. Curriculum construction—principles of curriculum construction of Basic schools
9. Time table
10. Problems of the different types of schools, small schools, urban schools, Basic schools, large size schools
11. Concept of discipline in a Basic school

(D) **Society**

1. Study of social and cultural background of a community
2. Home and school relations
3. Linking of school and community for mutual benefits
4. Education for national unity and emotional integration
5. Education for citizenship—international understanding
6. Role of school in community development.

4.18. An analysis of the evidence tendered by witnesses reveals that (1) they are not satisfied with the present curriculum; (2) they are in favour of having the course designed in terms of units; and (3) theory courses have little relation to practical work and observation.

All this goes in favour of having an integrated approach to teaching in the training institutes. In fact, the witnesses who were interviewed by the Committee were of definite view that an integrated approach would make the training meaningful and realistic.

4.19. Although the witnesses and respondents to questionnaires agree with the general framework of areas to be covered, as suggested by the First National Seminar on Primary Teachers' Training and as directly or indirectly covered by the integrated syllabus recommended at the Third Seminar, the following few points taken out from the data collected may be noted:

1. General methods of teaching must be taught. This paper cannot be done away with.
2. A separate paper on methodology of each school subject is not necessary.
3. Methodology should be taught in relation to content of school subjects. Some content courses, both remedial and intensive may also be covered.
4. Content in General Science and its methodology should be specially emphasized.
5. History of Education may be included but too much weightage should not be given to it and current problems should be emphasized in its place.
6. School organisation course should be made more realistic. It should include amongst other things all the routine activities that a future teacher has to perform in the actual school situation.
7. All the existing theory papers need some change so as to leave greater scope for discussions of practical problems.
8. Study of child psychology should be given greater importance and should be related to empirical child study to be conducted by the trainees.
9. Physical education also should be a necessary part of teacher training programme and Health Education should receive due attention.

Taking stock of these divergent views and the variety in the structure of courses, we feel, that however we structure the programme into different subject areas, it is necessary to have an integrated approach.

Practicals

4.20. From a study of the existing syllabi in the country, it appears that the practicals are organised under three major heads; (1) Practice teaching; (2) Productive work; and (3) Community living.

Practice teaching, in addition to actual class-room teaching, includes observation and discussion of lessons. In some cases it also includes child study and preparation of literature for the use of children. Practice in

productive work consists of practice in one or more crafts and also in some cases creative subjects like art, music and drama. Community living includes various kinds of self help practices for living a corporate community life, practice in democratic citizenship and health and sanitation activities. In some cases it also includes extension work in the neighbouring community in the form of social services.

We shall now analyse the three major areas of practical work, *viz.*, (a) Practice teaching, (b) Practice in productive work, and (c) Community living and discuss the related programmes.

Practice Teaching

4.21. The provisions made in the syllabi in this field present a variety both in respect of content and approach. The following are the salient features:—

1. While some of the syllabi, *e.g.*, Jammu and Kashmir (Basic Education Certificate Course), Kerala (Teacher Training Certificate Course), Tripura (Under-graduate Basic Training Course) and West Bengal (Senior Basic Training Certificate Course) do not make any mention of a scheme for practice teaching, the others *e.g.*, courses in Andhra Pradesh, Madras (Basic Training School Certificate) and Mysore provide for a detailed programme in this field.
2. The minimum number of lessons to be delivered by the trainees has not been specified in many syllabi. The provisions wherever made vary from 30 to 50 lessons.
3. Most of the syllabi provide for the observation of 10 to 40 class room lessons by the trainees.
4. Some courses have provided for a short period of apprentice teaching under the supervision of an experienced teacher of the practising school before independent teaching is started.
5. Provision for criticism or discussion lessons is found only in a few syllabi.
6. A few syllabi provide for continuous teaching for some time over and above the individual lessons. Some courses have made a mention of time to be spent on practice teaching instead of specifying the number of lessons.
7. A few courses have a provision for practical work in educational measurement and use of objective tests.
8. Syllabi for Andhra Pradesh provide for student-teachers' participation in regular school duties.

9. Some of the syllabi lay emphasis on the student teachers' visits to some schools for observation of the working of schools in their total aspects.
10. A general provision in almost all the syllabi is the emphasis on a final lesson, which has to be externally assessed.
11. Syllabus for Orissa provides for a number of school materials to be prepared by the student teacher such as lists of subjects suitable for written composition in different grades.
12. Syllabus for Punjab provides for sessional work with important practical aspects of the training which includes field explorations and collection of field data of natural and social environment.
13. A few syllabi have provided for maintenance of register for demonstration lessons, teaching practice etc., in the training colleges.
14. Emphasis on correlated teaching has not been laid in any of the syllabi although a mention of it has been made in a few cases.
15. Multiple class teaching has been provided for in a few syllabi.
16. Syllabus for Andhra Pradesh has a provision for observation of children in different situations to be done coextensively during practice teaching.

4.22. The First National Seminar, while considering this aspect of the syllabi, recommended that the following items of work should be included under methods of teaching: (1) Conducting simple experiments or study *e.g.*, construction, administration and analysis of objective type tests; *e.g.*, a survey of spelling mistakes of children of a particular class, etc.; (2) Learning by doing technique—helping in understanding of theory in relation to practical work experience; and (3) Planned practical work in relation to crafts, child study, community uplift work, practical teaching, literature for children, organisation of community life etc.

The Third National Seminar made the following recommendations: (1) The teacher educators should be sufficiently re-oriented; (2) The teacher pupil ratio should not be allowed to go below 1:10 for effective supervision of teaching practice; (3) There should be at least eighteen weeks of teaching practice including six weeks for block teaching during a course of two years; and the lessons should be planned with relation to life situations; (4) Every training institute should have one school for practice teaching attached to it under the control of the Principal and where it is not possible, a nearby school may be attached to the training institution; (5) The teaching of theories should be related to problems arising out of teaching situations; and (6) State Institutes of Education should undertake publication of suitable text books and guide books for the teacher.

4.23. The following views were expressed in the evidence collected by the Committee on this topic:

1. The present system of practice teaching was criticised for unsatisfactory organisation and inadequate supervision. The consensus of opinion was that the programmes of practice teaching in the colleges did not give the trainees an adequate and all round experience of a future Basic School teacher.
2. It was suggested that the trainees should take over the entire school programme for a month at a time. Each batch of students should do this at least twice during the course of their training. It was further suggested that practice teaching should not be period wise but the trainees should handle a class for a day or at least for half a day.
3. Another suggestion was that the minimum number of lessons to be given by the trainees should be specified in the syllabi.
4. Evidence has been critical about the practice of laying emphasis on final lesson which is generally externally assessed as this practice makes the practice teaching examination-oriented and results in more of show work.
5. It has also been pointed out that the supervision and assessment of practice teaching is undertaken in an unplanned and routine manner and is mostly subjective.

4.24. It will thus be seen that the present programme of practice teaching, suffers from inadequate planning. The elaborate preparations that go behind individual lessons and the tendency to punctuate the lessons with unrealistic and expensive audio-visual aids (mostly visual aids) provide for little scope on the part of the trainees to come to grips with the realistic problems that they have to face, when they come to the field after the training period. Little scope is provided to the trainees to experiment with new ideas, that they have learnt in the theory papers, while dealing with the practice teaching in the schools. Abstract learning in child psychology and methods of teaching different subjects are seldom tried out for the internalisation of these learnings. Demonstration and discussion lessons are generally staff oriented and are devoid of practical difficulties that the trainees have to face in future. The supervision programmes are generally weak and are restricted to mere assessment and fault-finding, which too is subjective. The result is that practice teaching, by and large, fails to achieve the objective of developing a problem solving attitude on the part of the trainees and providing opportunities to internalise learnings and get initiated to the profession.

Practice in Arts, Crafts and Music

4.25. Some form of productive work is an integral part of teacher training programmes that are prevalent in the different states. Gardening is common in almost all the traditional type of teacher training programmes. The Basic training schools obviously lay stress on the teaching of crafts which include gardening as also agriculture in some cases, particularly in case of rural institutes. Practice, however, differs in so far as the number of crafts is concerned. While the commonest practice is an emphasis on one major and one or two subsidiary crafts, a few syllabi, *e.g.*, Basic Training School Certificate, Himachal Pradesh and Diploma in Basic Education, Madhya Pradesh also provide for two or three major crafts along with two to three auxiliary crafts. Some of the syllabi provide training in two crafts without giving them either a major or auxiliary status. In some cases subsidiary crafts are considered as minor crafts and less time is therefore devoted to them. These are treated as subsidiary in the sense that they help in the development of the major crafts and therefore are related to the latter in some form or the other. In other cases there is no such relationship. They are treated as extra activities independent of the major crafts.

4.26. There is again variety in the kinds of crafts provided for. Some syllabi have kept gur-making, making of pickles, chuttnies and murabbas as crafts. Whether or not they can be considered a full-fledged educational craft is a question to be decided. The major combinations are however spinning and weaving, gardening and agriculture, paper work and card-board work and also wood work in some cases. Most of the syllabi have made no distinction between the theory and practice of the crafts. In some cases, however, the syllabi have been properly articulated in terms of theory and practice as also in terms of targets of production. This is particularly so in the case of Basic training institutions. The Third National Seminar duly recognised the importance of teaching theory alongwith the practice of crafts in order that teachers can make full use of the educational values inherent in the crafts. In the schemes of examinations, emphasis is laid on the assessment of practical skills and no specific mention has been made by and large about testing the knowledge of the theory of crafts. Unless theory of crafts is taught, teaching of crafts becomes imperfect making correlated teaching well nigh impossible.

4.27. Music finds a place in the syllabi meant specially for women. Art and other creative subjects do not appear to receive adequate attention in the syllabi though they should

4.28. The evidence collected by the committee on this subject was in favour of giving necessary skills to the trainees so that the teachers in their

tant might efficiently impart these productive skills to the children, but at the same time it was strongly in favour of including theory of crafts in the training courses as an examination subject. The evidence was also not in favour of including more than two crafts in the syllabus.

4.29. It can thus be seen that the craft courses in the training institutions suffer from certain weaknesses in the first place, the number of crafts to be learnt by the trainees has little or no bearing on the time available for these activities. If the trainees are required to receive instruction in a number of crafts, it is necessary to provide them with ample time and guidance for the acquisition of skills and attitudes and for learning the related theory. Secondly, the number of crafts is too many in some cases resulting in inefficient and ineffective learning. Thirdly, some of the crafts do not appear to be educationally potential and consequently it is hardly possible to exploit their educational possibilities in class-room situations. They may be considered as mere activities and experiments, only, in view of the fact that they cannot be pursued in a graded way throughout the school years. Fourthly, it is alleged that too much time is devoted to the acquisition of practical skills in some cases, while in others, too many crafts have to be 'mastered' in too little a time. Considering the varied needs of the schools situated in different environments it may be advantageous, if a teacher can handle many crafts. But experience shows that it is difficult, if not impossible, for a teacher to acquire necessary proficiency equally well in more than two crafts. A balance, therefore is likely to be struck if two crafts are taught in a two year course devoting 20% of the time. Fifthly, the provision of targets to be achieved in different crafts has brought in complications resulting in improper practices. Targets are certainly desirable provided they can be achieved by the average student and systematic teaching-learning situations are provided in the teacher training institutions to achieve those targets. This is not happening in many training institutions. Targets make learning efforts goal-directed and certainly result in acquisition of skills. If one of the accepted objectives of craft teaching is to produce socially useful work, it is desirable that there should be certain targets. But it is also necessary that these targets should not be arbitrary, too much time consuming and exacting. The desired targets should be evolved through a process of experimentation. The crafts programmes should have to take into consideration the individual differences and should therefore be adjusted to the needs, capacities and if possible aptitudes of the individual trainees, and above all to the needs of the schools in which they will work. It may however be necessary to reconcile the needs of the individual trainee with those of the school in which they will work. Crafts should contribute towards their own per-

sonality development and at the same time give them professional competence needed of class-room teachers. This suggests that there should be scope for selection of crafts suitable for various age groups of children living in different environments and that there is no need for pursuing one single craft in all the training institutions of the country.

4.30. Another weakness in the teaching of crafts is the dearth of good books and curriculum guides on crafts. The trainees have to depend on the lectures entirely.

4.31. Finally, it is necessary that teaching of crafts should be integrated with the total training programme. This teaching will no doubt be much vitalised if professionally educated craftsmen teach crafts. But for purposes of integration it is desirable that the whole faculty participates in the productive and creative activities of the institution in some form or the other to create the proper environment for such work. It should not be the responsibility of the specialists only to organise the teaching of productive activity in the institution. The specialist craft teacher or teachers will conduct experiments and strengthen its teaching with the resistance of other faculty members. It is also considered desirable to provide opportunities to the trainees to use crafts in practice teaching adequately. Participation of the entire faculty including the craft educators in the supervision of such practice teaching through crafts and creative activities will be essentially necessary if crafts are to find a proper place in the system of education. This suggests that all the faculty members should know at least the rudiments of one or more crafts and creative activities.

Community Living and Community Service

4.32. Organisation of community life activities and welfare activities is a common programme in all the courses. The general opinion about the community life and community service in training institutes is that it should continue to be an integral part in the training programme in consideration of its intrinsic value. The opposite view, although voiced by a few witnesses only, may also be mentioned which says that community work is not liked by the trainees as it is too late and gets insufficient time to change the behaviour pattern of teachers which the programme claims to do. A few would also like to reject it as the programme consists of so called 'non-essentials' which have little educative value. Although this is a minority view, yet it voices a warning which should not be ignored. It makes us feel that utmost care should be taken to plan and organise the community life activities so that the experiences derived therefrom give satisfaction and a sense of values and pride of living a good community life.

4.33. As a matter of fact a majority of the current syllabi do provide community life activities as part of the curriculum. But the emphasis on this subject varies from state to state. In Orissa for instance, 50 marks have been assigned to community life activities although no syllabus has been outlined in the prescribed courses. The syllabi of Andhra and Madras States have included a theoretical study of rural and social problems. Punjab course has a theory paper on Health Education and Recreational Activities. The West Bengal course provides for practical work in rural science, which include the growing of flowers and vegetables, and an intensive study of a village or a portion of a village and some form of practical village service.

4.34. The syllabi which have included the programme of community living have almost similar general pattern of activities with some minor differences. To give an idea, activities outlined in Bihar syllabus may be noted which, to a certain extent, represent the general picture. The syllabus includes: (1) Community prayer; (2) 'Safai' or cleanliness in the training school, in the hostel and in the village; (3) Observance of good health and hygienic practice; (4) Kitchen work; (5) Repair of buildings; (6) Observance of festivals and anniversaries; (7) self government; (8) Extension service, including social education activities; (9) Cultural and recreational activities; and (10) Excursions and picnics.

The syllabus of Kerala refers to the programme of Extension work. It requires the institute to work as an agency for community development. The course requires that a definite programme of work should be drawn up by the training college in consultation with the leaders of the local community and the officers of the village Panchayat and N.E.S. Block. The following are some of the items of work which the institute usually takes up: (1) Village survey; (2) Economic self-sufficiency programme; (3) Organisation of health squads; (4) Organisation of festivals and celebrations; (5) Rendering useful service through first aid; (6) Helping in census work, election work etc.; (7) Safai programmes; (8) Social education classes; (9) Disseminating information on current problems; (10) Relief work at the time of epidemic flood etc.; (11) Cultural and recreational programmes, and (12) Removal of social tensions.

Some syllabi, for instance, Bihar, Rajasthan and U.P. have also provided for a theoretical course in community organisation and community life. Some syllabi have also included special camps for intensive work in the villages.

4.35. An analysis of the above programmes would indicate that the community life activities can be categorised under two major heads: (1) programme related to community life activities on the campus requiring

student participation in the out-of-class activities of the institutes; and (2) programme of extension work or social welfare activities outside the campus and participation of the institute in the development of the neighbouring community in specific areas of development.

Methods of Teaching in Elementary Teacher Education Institutions

4.36. An examination of the existing syllabi shows that the majority of them do not refer to the methods of teaching to be adopted by the instructional staff of the training institution. Those few which have made references to method of teaching have mentioned in general terms that it is not advisable to stick to the lecture method alone and that supervised study, assignments, demonstrations, discussions, seminars, tutorial groups, surveys and visits etc. should have their proper place.

4.37. As evident from the data collected during the interviews conducted by the present committee the consensus of opinion is that lecture method which is the most prevalent method at present, should not continue to be the only method and that training colleges should use modern and scientific methods and thus, exemplify in action, some of the activities and methods which are professed to be more effective and efficient. Elaborating this, we may refer back to the main suggestions in this connection by the First National Seminar. It recommended the following methods to be used in training institutions:

1. Lectures aided and supplemented by audio-visual aids, discussions, written assignments, class-room visitations;
2. Lectures which will lead to further reading for consolidation and for finding more facts related to the topics taught. They will motivate trainees in the use of bibliography;
3. Tutorials;
4. Covering topics by setting long-term assignments, asking for bibliographical references; in order to develop self-study technique, practical assignments may also be set;
5. Survey of educational problems, survey of educational facts, community survey, etc.
6. Child study followed by written reports and discussions.
7. Class-room observation in practising schools.
8. Organised school visits and follow up.
9. Organised tours and excursions.
10. Group work: (1) Study circles (2) Practical projects (3) Theoretical projects (4) Practical-cum-theoretical projects.

11. Methods involving group dynamics and cooperative problem-solving like: (a) symposia (b) seminars (c) workshops (d) panel discussions, etc. A few topics from each subject of the course may be carefully selected so that they may be covered through group methods.
12. Conducting simple experiments or study *e.g.*, construction, administration and analysis of objective tests, a survey of spelling mistakes of children of a particular class etc.
13. Learning by doing techniques to help in the understanding of theory in relation to practical work experience projects at the following level may be undertaken: (a) Projects or units of work at trainee's level; and (b) Units of work at children's levels should be undertaken during practice teaching.
14. Planned practical work in relation to: (i) crafts, (ii) child study, (iii) community uplift work, (iv) practical teaching, (v) construction of teaching aids, (vi) literature for children, (vii) evaluation programme and (viii) organisation of community life activities.
15. Demonstration lessons by the staff of the training institutions, teachers of practising schools and student-teachers. Discussion of such lessons.

4-38. The deliberations of the Third National Seminar on teacher education suggest two distinct approaches.

1. There should be an integrated approach to theory and practice. Theories should always be introduced to the teacher-trainee with reference to actual problems within his experience.
2. In order to achieve this, team teaching should be adopted *e.g.*, one lecturer will deliver the lecture which will be attended by all trainees and some staff members. Immediately after this lecture the trainees meet in small discussion meetings with the staff members who attend and discuss the topic more closely and in detail.

Objectives of Teacher Education and Bases of Curriculum Construction

Qualities of a Successful Teacher

THE PLACE and the importance of the teacher in a community cannot be over-estimated. Right from the earliest period to the present day philosophers and administrators have eulogised the teacher's work in most generous terms. He has been called a nation builder and the saviour of mankind. In the field of education, or teaching-learning situation, his importance is second to none. In the words of Prescott, "The teacher is the ultimate agent of education. No matter what appears in the official courses of study, it is he who sets the daily tasks for the pupils, or who helps them to develop a planned work. It is he who sanctions or condemns their habits, their attitudes, their personal qualities. If education is ever to have a genuine influence in shaping character, or in giving insight into life, the teacher will be the agent who will carry this influence. It is his philosophy of education put into practice which really matters"¹. The quality of education depends basically upon the quality of teachers. It does not take much to realise that, "the quality of a nation depends upon the quality of its citizens. The quality of its citizens depends not exclusively, but in critical measure, upon the quality of their education. The quality of their education depends more than upon any other single factor, upon the quality of their teachers"². The same thing is said by Prof. Saiyidain: "The more I see of educational work—good work and bad work—the more emphatically I feel that the quality of a teacher in an educational system is a more important factor than all the other educational factors put together—syllabus, test-books, equipment and buildings. If we cannot secure a teaching personnel that is keen and intelligent and has a high sense of duty and integrity...no educational scheme can have the slightest chance of success"³.

1. Prescott, D. A. *The Training of Teachers*. Rutgers University Bulletin, IX-8, 1933, p. 5.

2. Commission on Teacher Education. *Teachers for Our Times*. Washington: American Council on Education, 1944, p. 2.

3. Saiyidain, K. G. *Problems of Educational Reconstruction*.

5.02. If so much depends on teachers, then proper selection of desirable persons and an adequate and effective programme of their training becomes necessary for the organisers of teachers colleges. Both in the selection and in the programme of teacher preparation the basic question that will have to be considered is: What qualities make a good teacher? Or, what qualities constitute an effective teaching personality? Prediction of teaching success depends primarily on the determination and clear visualisation of the qualities essential for success in teaching, and the efficiency of a teacher preparation programme will lie in promoting these qualities in student-teachers.

5.03. Qualities essential for success in teaching can be considered and determined from the following three view-points: (1) historical, (2) psychological, and (3) sociological. Historically in India great stress has been laid on the qualities of head and heart, character, skill, scholarship, modesty and humbleness etc. Teachers in the past were generally more concerned with scholarship and character building.

5.04. Psychologically, numerous researches have been carried out to identify and measure the qualities of a successful teacher. These have been done through the pooling of judgements or through the study of effective teaching personalities. The work on Indian teachers done at Baroda and Allahabad has led to the emergence of the following qualities associated with success in teaching:

General qualities: Physical, social and emotional qualities of a cultured and responsible citizen.

Specific qualities: Knowledge of the subject matter, general knowledge, ability to impart knowledge and skill, understanding of and love for children, leadership and linguistic competence.

5.05. A teacher, however, does not work in a vacuum, and the above mentioned qualities of an effective teaching personality have to be viewed in the light of the social context in which he works. It is for this sociological reason that the concept of an ideal teacher will differ from nation to nation. The social and cultural outlook and the philosophy of life, the social and economic conditions, customs and traditions, as a matter of fact the entire social climate of the community will determine in a large measure the concept of a good and successful teacher.

The Pattern of Pre-Service Education for Elementary Teachers

5.06. It has been discussed earlier in this Report* that there is a lack of uniformity in the duration of the courses and also in the admission require-

* Suora. Ch. III and V

ments for elementary training institutions. Generally the courses are of one or two years' duration, and the trainees are matrics as well non-matrics. Often they attend the same classes and are trained in the same institution. A sprinkling of graduates are also being recruited either as headmasters or senior teachers of elementary schools in some States. These candidates receive their training in post-graduate teachers' colleges.

5.07. There is a unanimous opinion in the country today that the recruitment of non-matrics to the teaching profession should be immediately stopped. In 1950-51, as many as 89 per cent of teachers at the primary level were non-matriculantes. In the last fifteen years, new recruitment to the cadre of primary teachers has been mainly restricted to matriculates—exclusively in some States and predominantly in others—so that about 75 per cent of the new recruitment of primary teachers is that of matriculates only. In view of this situation, the Committee feels that the minimum qualifications for admission to an elementary teacher education institution should as far as possible be a Pass in the Higher Secondary Examination or at least Matriculation examination specially in view of the fact that enough candidates are available in most of the States with these qualifications. Thus unless a person has completed ten years' schooling, it will not be possible for him to become an elementary teacher.

5.08. This condition will have to be relaxed in case of women teachers specially in view of the shortage of matriculate women candidates taking up teaching as their profession. This will equally hold true for backward areas where there are not enough matriculates—males and females—ready to join the teaching profession. The Committee, however, feels that this will be a mere temporary phase.

5.09. Thus while the completion of ten years' schooling will be the minimum standard for admitting a candidate to an elementary teacher training school, non-matriculantes will be admitted in these institutions under special circumstances, *i.e.*, in backward areas and women candidates. The Committee, however, holds that the training programme of the matriculates and non-matriculantes will be different and that they will not attend the same class.

5.10. What should be the duration of training for these two types of trainees? One of the outstanding trends in teacher education throughout the world is the extension of the duration of the training course. For example, the early normal schools training elementary teachers in the U.S.A., offered one year programmes, later two year programmes, then three years and now four years. The same is the situation in England too. It is thus very necessary to raise the duration of the training course in this country too. It should be of two years for the matriculates and

of three years for the post-middle candidates. This will be very necessary since the programme we are envisaging will be of quite comprehensive nature. The post-middle candidates will need an additional year, since their training programme aims at making up their academic deficiency.

5.11. What about the graduates? They will continue to receive a year's training, since all the training programmes for graduates are of a year's duration in the country at present. These programmes, however, aim at preparing teachers and administrators for secondary education, and not for elementary education. Thus it will be necessary to frame a suitable post-graduate course aiming at equipping the graduates to shoulder the teaching and administrative responsibilities of elementary schools. This should be on par with the B.Ed. course. In short, it will be necessary to chalk out the following three types of pre-service education courses for teachers and administrators of elementary education:

1. Three year course for post-middle candidates,
2. Two year course for matriculates,
3. One year course for graduates.

Objectives of Training Elementary Teachers

5.12. It will now be necessary to examine the main objectives which the teacher training institutions should keep before them in the pre-service education programmes. Any comprehensive and realistic appraisal of the present conditions in India will lead us to the conclusion that the preparation of the elementary school teachers in the country ought to be guided by the following important considerations:

(1) According to the national policy all elementary education in the country is to be of the Basic type. The teacher, therefore, has to be well-versed in both 'theory and practice of Basic education which aims at the integrated development of the whole child through craft activities and life situations according to individual needs, aptitudes, abilities and interests, in order to enable the child to adjust to a democratic society based on truth, co-operation and dignity of labour'. The age-group for this elementary education is to be 6 to 14.

(2) The aims of elementary education have to be kept in mind as the teacher has not only to work for them through his teaching but also uphold them in his practical life. Generally speaking these aims would include: (a) growth in health, intellectual power, moral choice, aesthetic expression and appreciation, (b) growth in social participation, person-to-person relationships, group membership, inter-group membership, and (c) growth in ability to deal with environmental factors and forces. These apply to Indian conditions of today also.

(3) Education in general and teacher education in particular has to be visualised in terms of the democratic values and way of life accepted by the country. This will involve training for responsible citizenship of a democratic society both for the teachers and the school children. The teacher will also have an additional role of leadership in the community if he wants to make the school a centre of community welfare and progressive outlook.

(4) Weightage has also to be given to the important aspects of forward thinking about educational planning and development in future. Immediate shifting of emphasis to the qualitative improvement of elementary school teachers within the limitations of financial resources of the country has to be brought about. Mere increasing of trained teachers without an eye on the quality of training imparted to them will, therefore, not do. Emphasis on human factor in teacher community relationship, rather than a mechanical approach to teaching in terms of imparting knowledge and information, will have to be emphasised.

(5) The objectives of teacher preparation cannot ignore the reality of the situation regarding the quality of the present entrants in the profession of elementary teaching. This quality is determined primarily by the emoluments and other service conditions that the profession offers to the teaching personnel. It will be unrealistic and unpractical to be too idealistic in fixing the objectives if the raw material that is recruited is not sufficiently potential.

5.13. In view of the discussion above, it seems desirable to fix the following objectives for teacher education for the elementary level:

1. To help student-teachers in the following *understandings*:
 - (a) To understand the developmental needs of the elementary school children at the various stages of growth.
 - (b) To understand the cultural and social needs of a secular and democratic society in a scientific age.
 - (c) To develop insight and sympathetic understanding in regard to the harmonious development of the individual as an ideal citizen.
 - (d) To help understand the philosophical, sociological, psychological, historical and economic bases of Basic education.
 - (e) To help understand the factors which influence education, and also the growth and development of the society.
 - (f) To help acquire adequate knowledge of the subjects taught at the elementary school level.
2. To help student-teachers in the following *skills and abilities*:

- (a) To help in clear expression of thought in fluent and correct speech (mother-tongue, regional and national language).
- (b) Ability to conduct empirical studies in order to identify child's needs, urges and attitudes.
- (c) Ability to conduct community surveys in order to locate the direction in which communities are to develop and link the school with community.
- (d) Ability to evolve and adapt methods and techniques (in basic method) suited to different environmental situations and help realistically and effectively in the integrated growth of children in these situations.
- (e) Ability to build up curricular content around different units of activities and experiences—ability to organise units of lessons, in relation to crafts and creative activities and physical and social living in Indian democracy.
- (f) Ability to produce, appreciate and evaluate critically child literature for various subjects and in methods of helping pupils use books for reference purposes.
- (g) Ability to teach different school subjects in a correlated manner, enlisting maximum involvement of children in the learning process.
- (h) Ability to know individual differences and individualise instruction.
- (i) Ability to organise schools as self-governing, creative, active, cooperative and democratic community of pupils and teachers, thereby to prepare pupils as responsible and cultured citizens. Ability to lead the community intellectually.
- (j) Ability to improve, prepare and use teaching aids suited for imparting education.
- (k) Ability to evaluate the growth and the impact of the school on the community, from time to time; ability to locate strengths and weaknesses of the school programmes; ability to maintain different types of school records—cumulative records, craft records, office records etc.
- (l) Ability to formulate goals of different activities in school and community, to organise the activities, maintain records of the work done and to evaluate the outcomes.
- (m) Ability to survey, locate and understand problems of present-day Indian society and ability to suggest and attempt their solution objectively and scientifically.

- (n) Ability to build up relationships, foster inter-group understandings, national and international understandings and emotional integration; ability to work with people - children, fellow teachers, parents and other community members.
3. Development of positive *attitudes* towards;
 - (a) Teaching profession.
 - (b) Manual work.
 - (c) Social welfare work.
 - (d) Scientific approach in all professional activities.
 - (e) Humanity in general.

Need for an Integrated Course

5.14. Realisation of the above objectives in the three areas of understanding, skills and attitudes, has to be attempted in adequate measure and in a balanced way so as to lead to the development of a well-integrated, harmoniously built, and effective teaching personality. This would require a dynamic and comprehensive programme of teacher education, including theoretical and practical as well as curricular and co-curricular activities organised in and outside the training institution.

5.15. There is also an apparent need to make the elementary school teacher a well-educated and cultured person. While it is difficult to define the qualities of such a person in rigid terms, one may say that well-educated person would be one who could place a poem, a piece of art, a political event, a natural phenomenon, etc., in proper perspective. He is able to function widely and effectively in his relationships. The student-teachers very much need courses which will help them to build up a context or a perspective of their own life. It is only then that they would be able to live and act effectively as teachers.

5.16. The committee therefore suggests the following areas in the programme of teacher education.

1. **General Education :** The need for this is based on the consideration that an elementary school teacher should be a well educated and cultured person. The course in general education would mean making him 'conversant with the ways men have come to exercise their aesthetic and emotional relationships, the ways they have come to establish their human (social, political, economic, etc.) relationships, and their cultural and historical roots, the way they have controlled and harnessed nature, so that he is able to function wisely and effectively in these relationships, and, in any case, guide his pupils to function in such a manner.

2. **Remedial Programme :** This is based on the experience that many training college entrants have missed certain items of knowledge and skill in their earlier schooling, which are essential for them in their teaching work. These should be provided now in the training institutions so as to fill the gaps in their past education as well as provide opportunities for correction of the effects of wrong or poor schooling. This programme will attempt to bring all training college students to an almost equal and desirable level in different academic subjects.
3. **Advanced Content Course :** The Committee has strongly felt that the three basic requirements of a good teacher could be knowledge of the child, of the teacher's role and of the subject matter that is taught. The more a teacher knows about these three things the more effective he is likely to be. It is, therefore, desirable that the training college programme should provide ample opportunities to the student-teachers to extend their knowledge of school subjects that they have to handle in the Elementary School, beyond the level of their previous achievement. Efforts might be made to push up the level in mother tongue to the Intermediate or the 1st year of the University Degree courses. With such an increased knowledge of the subject matter they will be able to enrich their class-room teaching and give more to their pupils in different areas of school work.
4. **Specialisation :** The Committee feels that the capable and willing students have one specific area for specialisation during the period of training. The justification for this is that besides attaining a broad base, every teacher should be able to explore and identify his special talent, interest and capacity in some specific field and try to develop and grow in it to the maximum possible extent. This will enable him to flower out and build up his personality round the activity of his main interest. Ultimately this special interest and achievement is bound to enable him to be a better teacher.
5. **Pedagogical Courses :** This would include the usual course in educational psychology, methods of teaching, etc., which are an essential part of teachers' training. The theoretical as well as the practical courses have, however, to be functional and intimately related to the actual class-room situations. No doubt any attempt to understand the educational process would lead us to generalisations, principles, rules, laws, etc., but their inter-relationships have to be established which alone would lead the student teachers to higher and higher levels of understanding and enlightened educational practice.

In the present subject-wise classification the scope of understanding becomes so limited by virtue of logical relationships within a subject itself that the inter-relations cannot be perceived or realised by the student teachers. Consequently, problems of educational theory get isolated from problems of educational practice. On no account then can self-critical and methodical processes of thinking be engendered which could be conducive to action being based on valid analytic and synthetic judgement.

The way out of the difficulty is (1) to attempt an integration of these different subjects, and (2) to make educational theory serve the ends of educational practice. As for the first objective, we are aware of the fact that educational problems can be looked at from several points of view and the content of various subjects organised on the basis of anyone of them. We can, therefore, have a number of different, if not opposing, integrated schemes of educational theory and methodology.

5.16. The courses as spelt out in this report must necessarily be thought in terms of parts or elements of an integrated programme. They have all to be fused into one, and operate in the same direction of achieving the objectives of teacher education. If the concept of core-curriculum is to be applied then for all these courses the core will be effective class-room teaching, and each one of the above courses will be directed to the improvement of class-room teaching. Only then can the curriculum as recommended by the present Committee be worthwhile in terms of the objectives specified above.

In the following chapters the specific objectives for each area in different courses are spelt out in greater detail. The Committee strongly feels that the principles for the construction of the present curriculum for preparing elementary school teachers should be considered as the basic factors in understanding the meaning and significance of the suggested programmes.

CHAPTER VI

Programme for the post-middle candidates

THE PROGRAMME shall run for three years and will be divided into the following parts:—

- A. Content-cum-Methodology Courses.
- B. Theory and Practice of Education.
- C. Crafts.
- D. Art, Music, Recreational and Cultural Activities.
- E. Community Life and Community Service including Physical Education Health, and
- F. One additional optional subject (Only for those, who want to offer and are considered suitable.)

6.02. *Distribution of marks*

A & B. Theory including content courses	600	} 1000
Practice of Education	200	
C. Crafts	100	
D & E. Art, Music Community life and Community Service	100	
<hr/>		
F. Additional Optional	100	

A. CONTENT-CUM-METHODOLOGY

6.03. *Objectives*

1. To make up the deficiencies in the student-teacher's academic preparation from the point of view of the needs of the elementary school—student-teachers being expected to handle all subjects upto standard V and some subjects upto VII.
2. To familiarise student-teachers with the elementary school syllabus.
3. To deepen his knowledge in the academic subjects upto the high school level.
4. To develop the student-teacher's ability to use language effectively (oral and written).
5. To develop attitudes of scientific thinking, problem solving, identifying relationships and appreciation

6. To give him necessary and adequate competence to help children effectively in learning the academic subjects.
 7. To help him evaluate the outcomes of the learning experiences of children.
- 6.04.** The courses in this area will include the following subjects:
1. Mother-tongue/Regional Language
 2. Mathematics
 3. Science
 4. Social Studies
 5. Second Indian Language/Hindi
- 6.05.** Under each subject there are three sub-sections:
- (i) Remedial Work
 - (ii) Methodology peculiar to a subject, and
 - (iii) Content.

1. Mother-Tongue/Regional Language

6.06. *Remedial Work*

1. Consultation of a dictionary or reference books.
2. Correction of speech defects and pronunciation mistakes.
3. Correction of spelling errors.
4. Correction of errors in sentence construction.
5. Practice in punctuation.
6. Knowledge of idioms, proverbs and phrases.
7. Composition-oral and written-letter writing essay and precis writing.

6.07. *Methods of Teaching of Mother-tongue and School Curriculum*

1. Objective of learning language.
2. The growth of speech habits in children:—locating errors in speech and finding out causes—physical and emotional, adopting measures to rectify them.
3. Methods of teaching oral expression, free expression, imitation.
4. Elements of reading—teaching reading to beginners (a) traditional (b) phonic (c) word (d) sentence (e) situational and (f) composite.
5. Loud reading and silent reading; reading for comprehension: reading for pleasure.
6. Mechanics of writing: calligraphy, transcription, dictation.
7. Correction of errors in speech and spelling and handwriting.
8. Methods of teaching lessons in textbooks.
9. The place of mother-tongue in Basic school curriculum, correlated teaching programme and work-method.

10. Mother-tongue curriculum for Basic school (supplement it with a study of the present school syllabus):
 - (a) Oral work (b) Reading (c) Writing (d) Spelling (e) Grammar (f) Syntax and composition.
11. Evaluation in Mother-tongue and Remedial Work.

6.08. Content

1. A selection from representative poets and writers of different schools and different periods (prose, poetry, drama and other literary forms).
2. Library appreciation—form, technique (style) and values of literature.
3. Composition:—
 - (i) Maintenance of diaries and records.
 - (ii) Presentation of report of work records.
 - (iii) Preparing news digest and minutes of meetings.
 - (iv) Letter writing.
 - (v) Notices and announcements.
 - (vi) Recitation and speech making.
 - (vii) Writing simple dialogues.
 - (viii) Creative writing.
4. Specific linguistic problems related to the mother-tongue/regional language syntax and usage.

2. Mathematics

6.09. Remedial Work

1. Mathematical concepts:
Meaning (or translations) of word directions—writing numbers, fractions, money, roots, abstract numbers (symbols), formulae, etc.
2. Mathematical operations:
 - (a) Four fundamental rules.
 - (b) Elementary geometrical figures.
 - (c) Graphs.
3. Mathematical reasoning:
Problems of unitary method, average, area, percentage and simple interest, profit and loss equations.

6.10. Methods of Teaching Mathematics and School Curriculum

1. Number, size, and form in craft and life.
2. Growth of number concepts and recognition of size and form among children.
3. Objectives of teaching mathematics.

4. Methods of teaching numeration and notation and four fundamental rules.
5. *a)* Analytic and synthetic, inductive and deductive approaches in teaching of mathematics.
b) The Herbartian, project, problem solving and unit methods applied to teaching of mathematics.
c) Work method applied to teaching of mathematics.
Note:—The work-method involves the following:
(i) Perception of problem—what is to be done, *(ii)* developing plan of work, *(iii)* carrying out different activities of the work, *(iv)* review and modification of the plan of work during execution, *(v)* conclusion of work-plan-assimilation and organisation of understandings, skills, attitudes, etc., acquired during work-activity, *(vi)* use of these in future work-plans and activities.
d) Drill and mental arithmetic in the elementary classes.
6. The place of mathematics in Basic school curriculum.
7. Mathematics curriculum for Basic schools (supplement it with a study of the present school syllabus).
8. Evaluation in mathematics and remedial work.

6.11. *(iii) Content*

The syllabus may be the same as prescribed by the Board of Secondary Education or local University for High School Examination.

3. General Sciences

6.12. *Remedial Work*

1. Living things:
 - (a)* Characteristics, habitat, food, reproduction and life history of common animals and pets, birds, reptiles and insects.
 - (b)* The human body—its organs, basic functions and major systems, protection from common diseases, first aid, food and balanced diet
2. Non-living things:
 - (a)* Water, air, seasons and weather.
 - (b)* Rocks, soils and minerals.

6.13. *Teaching of General Science and School Curriculum*

1. *a)* Science and its impact on human society, thought and living.
b) The scientific method.
c) The scientific attitude.
2. *a)* The concept of general science.
b) The nature and scope of general science.
3. Objectives of teaching general science.
4. Methods of teaching general science.

5. Work-method and teaching of general science.

Note:—The work-method involves the following:

(i) Perception of the problem (ii) planning of the work programme, (iii) carrying out of the plan, (iv) review and modification during execution, (v) conclusion of the work plan. These processes match well with (a) observation, (b) hypothesis, (c) experimentation and (d) induction aspects of the scientific method. Identification and understanding of inorganic or organic (physical, chemical or biological) relationships occurring in the work-activity become possible by using scientific concepts and techniques developed by man down the ages. These scientific concepts and techniques can be learnt while participating in the work-activity programme planned in the school.

6. The place of general science in Basic school curriculum

7. General Science curriculum for Basic school (supplement it with a study of the present school syllabus)

8. Science club, science museum and school park

9. Evaluation in General Science and remedial work

6.14. Content

The programme herein is under unit and concentric plan. It has been detailed for each of the three years :

I YEAR

Unit I LIFE STUDIES

(A) Plant Life

- (i) Plant-types: herbs, shrubs, and trees with examples; annuals, biennials and perennials
- (ii) Uses of plants as sources of food, shelter, clothing, medicines, etc.
- (iii) Different kinds of common crops and regions and seasons favouring the growth of the plants.
- (iv) Transpiration and conservation of soil water.
- (v) Pulses as fixers of nitrogen, crop rotation.
- (vi) Economic plants: coffee, tea, tobacco, areca nut, coconut sugarcane and chillies.
- (vii) Medicinal plants.
- (viii) Flowering plants, seasonal flowering.
- (ix) Timber trees useful for carving, furniture and building works.

- (x) Earthworm as a friend of the farmer.
 - (xi) The parts of a typical flowering plant and a simple account of their functions: root, stem, leaf, flower, fruit and seed.
 - (xii) Flower and its parts.
 - (xiii) Pollination: self and cross pollination.
 - (xiv) Fruit and seed dispersal.
- (B) Animal Life
- (i) Animals—classification as vertebrates and invertebrates with a few examples of each.
 - (ii) Food habits and structural adaptations of herbivorous, carnivorous, rodents—two animals of each type.
 - (iii) Usefulness of animals (including insects and birds) as sources of food, clothing, draught animals and pets.
 - (iv) Sources of wool, skin, hide and feather.
 - (v) Harmful animals including insects and birds, and spread of diseases through them.
 - (vi) Feet and beak of birds with reference to their food habits.
 - (vii) Animal migration—bird banding, protection of wild animals sanctuaries, their purposes and location.
 - (viii) Warm and cold-blooded animals.
 - (ix) Coverings of animals.
 - (x) Need for storage of food in plants—storage organs in plants.
 - (xi) Vegetative propagation in plants—raising of plants from leaf, root cuttings and by layering.
 - (xii) Living and non-living things—distinguishing features of each kind, differences between plants and animals.
- (C) Human Life
- (a) Human Body—primary divisions of the body organs.
 Digestive system:—(i) Need for food—body builders and heat producers—different types of diets—need for balanced diet.
 (ii) Digestive organs—process of digestion and assimilation.
 Circulatory System:—(i) Heart and blood vessels, (ii) Functions of heart, blood vessels and blood, (iii) The blood contents, (iv) Care of heart, pulse.
 Respiratory System:—(i) Organs of respiration and process of respiration, (ii) Nature of inspired and expired air—ventilation, (iii) Correct mode of breathing and posture, (iv) Care of respiratory system.
 - (b) Growth:—(i) Part of a bean and maize, (ii) Different stages of germination—conditions of germination.

Unit II. UNIVERSE AROUND US

- (1) Earth—its crust, elevation—hills and mountains, depressions, lakes and seas.
- (2) Rocks—igneous, metamorphic and sedimentary layers and their ages, fossils and their significance in tracing evolution.
- (3) Work of running water—valleys, gorges, erosion, conservation of surface soil—afforestation, action of air, water, sun's heat—weathering of rocks and formation of soil.
Soil—composition of soils (mineral and organic matter, their function).
Types of soil.
- (4) Solar system—Planets, comets and meteors.
- (5) Gravitation—The movement of planets and their satellites.

Unit III. NATURE OF THINGS

- (i) Matter—mass—weight; volume and density; atoms and molecules; elements—compound.
Units of measurement—simple laws of the pendulum. Use of balance—density of objects.
- (ii) Air—the atmosphere around us. Air has weight. Air exerts pressure. Barometer, syringe and common pump.
Composition of air—increase in weight during burning. Use of oxygen: combustion—presence of oxygen and nitrogen in air. Rusting, prevention of rusting, use of paints. Active and slow combustion—combustion in animal body.
Carbon dioxide in air—how added and removed. Contamination of air by industrial processes, putrefaction, breathing and burning.
Water vapour in air—evaporation—conditions favouring evaporation. Condensation of water vapour in air—mist, fog, dew, rain, snow and hail.
- (iii) Water—natural sources—rain, river, spring, well, tank, and sea.
Impurities in drinking water—purification, decantation, filtration, distillation. Rural and urban water supply.
Properties of liquids—pressure at a point, upward, downward, sideward. Liquids find their levels. Transmissibility of pressure—Bramah press. Solution—saturated, unsaturated, solubility, crystallisation.
Mixtures—Properties of mixture—methods of separation, simple physical processes, decantation, filtration, evaporation,

solution, distillation, etc., physical and chemical changes—four types of simple chemical changes.

Elements and compounds.

Action of water on metals—sodium, magnesium and iron hydrogen—its preparation and properties and uses.

Oxygen. Preparation, properties and uses.

(iv) Infection:—ways by which bacteria get into human body—through food, drink, air, wounds, insect and animal bites.

Disinfectants—lime, bleaching powder, boric acid, carbolic acid, chlorine, hydrogen peroxide, iodine, potassium permanganate, D.D.T. etc. and how they are used.

Unit IV. ENERGY AND WORK

Energy: forms of energy

Heat: sources of heat—sun, fuel, oil, coal, electricity, friction.

Effects of heat—expansion effects on solids, liquids, and gases and their practical applications.

Thermometers:—fixed points of a thermometer—the two scales Fahrenheit and Centigrade scales.

Clinical thermometer.

Unit V. Study of lives of scientists who have contributed to the enrichment of scientific thought—(i) Galileo, (ii) Newton (iii) J. C. Bose.

II YEAR

Unit I. LIFE

(a) Nutrition in plants—photosynthesis—simple experiments to demonstrate starch formation in a green leaf and liberation of oxygen—result of over-crowding in gardens and fields.

Nutrition in non-green plants.

Just a mention of plant parasites and common insectivorous plants.

(b) The externals—habits and life history of butterfly, silkworm. The externals—habits and life history of a frog.

(c) Excretory organs—A brief account of the work of skin, lungs, and kidneys. Hygiene of hair, nails and skin. Proper clothing. Skin and lung diseases.

(d) Nervous system—different parts of the nervous system.—brain, its parts and functions. Spinal chord. Nature of reflex action—fatigue.

(e) Sense organs and skin care.

Unit II. UNIVERSE AROUND US

1. The Sun—its size, distance from Earth, nature, sun spots, sun as a star, seasons.
2. The Moon—its size, distance from Earth, nature, phases and tides.
3. Solar and Lunar systems of calendar.
4. Solar and Lunar Eclipses
5. Our galaxy—path of the sun and the moon in the Zodiac star constellation. Indian constellations of 27 stars.
6. Galaxies—vastness of the universe. Milky way.

Unit III. NATURE OF THINGS

Non-Metals

- (a) Nitrogen and ammonia—natural and artificial manures, care in the use of artificial fertilizers.
Nitric acid—preparation, properties and uses.
Carbon—allotropic forms of carbon.
Carbondioxide—preparations, properties and uses.
Sulphur—allotropic forms—properties and uses.
Sulphuric acid—properties and uses.
Chlorine—preparation, properties and uses.
Hydrochloric acid—preparation, properties and uses.
- (b) Buoyancy—principle of Archimedes, relative density, floating bodies, hydrometer, lactometer.
- (c) Lenses and their uses (qualitative only), camera, microscope (simple and compound), astronomical telescope and magic lantern.
- (d) Non-metals—phosphorus—allotropic modifications—properties and uses—phosphates as manures.
- (e) Metals in common use (properties and uses) iron, copper, aluminium, tin, mercury, silver and gold. Common alloys (brass, bronze and solder and stainless steel).
Extraction of Iron—forms of iron.
Extraction of aluminium—electrolytic method applied to these two metals.
- (f) Common things we use—paper, matches, ink, soap, glass, cement (how they are made).

Unit IV. ENERGY AND WORK

- (a) Heat—transmission of heat—conduction, convection and radiation.

Common applications—thermos flask.

Domestic heating and air conditioning.

(b) Light—luminous and non-luminous bodies.

Propagation and speed of light—light year.

Reflection—laws of reflection.

Plane mirrors—images in plane mirrors.

Concave and convex mirrors—nature of images, use of the mirrors.

Refraction—path of a ray through a slab, a prism and water (qualitative only).

Dispersion of light—formation of a rainbow.

Unit V.

Study of lives of scientists who have contributed to the enrichment of scientific thought.

1. Archimedes
2. C. V. Raman.
3. Faraday.

III YEAR

Unit I. LIFE

(a) The Cells—structure and division, plant cells and animal cells—Elodea and Euglena.

(b) Bacteria—useful fermentation, soil bacteria, nodular bacteria, putrefying bacteria.

Harmful bacteria—disease-causing:

1. Through food—cholera, typhoid.
2. Respiratory—consumption and pneumonia.
3. Bites of animals and insects—malaria, plague.

Methods of overcoming bacterial diseases:

1. Natural immunity.
2. Killing bacteria by drugs—quinine and penicillin.
3. Immunisation by inoculation and vaccination—cholera, plague and small-pox.
4. Antitoxin method—rabid dog, snake poison.

[Refer to the work of Jenner, Pasteur and Flemming.]

(c) Interdependence of plant and animal life—carbon and nitrogen cycles in nature:

Human body as a machine.

Endocrine glands and hormones, diseases caused by defective functioning of these glands.

Vitamins—foods rich in vitamins. Vitamin deficiency diseases.

(d) First aid—

Fractures—simple and compound—which the pupil should attend to and which he should not. Cuts and bruises.

Bleeding—prevention—ligatures. (Refer briefly to antiseptics).

Burns and scalds.

Insect bites and snake bites.

Respiratory—asphyxia, drowning—first aid in such cases.

Street accidents—shocks, poisoning.

Foreign bodies in the eye, nose, ear and throat.

(e) Organic evolution—A very elementary idea of the Doctrine of Descent and Darwin's contribution.

Unit II. ENERGY AND WORK

(a) Magnetism—different kinds of magnets—bar needle, horseshoe

Properties of magnets

Earth a magnet—mariners' compass.

Electricity—cells and ways of overcoming polarisation—Daniell.

Circuit—switches.

Effects of electric circuit—heating and lighting.

Magnetic effect—galvanoscope.

Electromagnet—electric bell, principle of telegraphy.

Chemical effect—electrolysis, electroplating.

Unit III. NATURE OF THINGS

(a) Acids and alkalis—their properties, their neutralisation and formation of salts, sources of common salt.*(b)* Hard and soft waters and methods of softening hard water.*(c)* Persistence of vision and motion pictures.*(d)* Sound—how produced and how transmitted. Sound vibration—stringed musical instruments, reflection of sound, formation of echoes, gramophone.*(e)* Electricity, magnetic field, lines of force, induced currents—dynamoes AC and DC.

Carbon microphone—telephone, electric motor—uses and advantages—radio and broadcasting.

(f) Work and simple machines.

Elementary knowledge of speed, velocity, acceleration and inertia, inclined plane, wheel and axle.

Pulleys.

Power transmission by gears, chains and belts.

Simple levers.

Windmill, water wheel, and turbines. Steam engines and oil engines, aeroplane.

- (g) Simple ideas of atomic energy—elementary ideas of the structure of the atom.

Unit I. INFECTIOUS AND COMMUNICABLE DISEASES

Unhappiness, suffering, loss of time and money due to diseases.

Relation to national vitality

Importance of precautionary measure

Causes of illness: infection by germs, microbes, bacteria, contagion, excessive exposure to sun's rays, chills, indiscretion in eating and drinking, uncleanliness.

Common symptoms of and precautions against diseases such as cholera, dysentery, plague, typhoid, tuberculosis, small-pox, mumps, whooping-cough, malaria, scabies, ringworm, hook-worm, common-cold, influenza, pneumonia, diphtheria.

Common pests:—mosquito, housefly, fleas, bugs, cockroaches, lice, rats.

Unit V. RURAL SANITATION

Unhygienic conditions of the villages, water supply, disposal of refuse, streets and lanes, lighting in houses, care of domestic animals.

Protection against mosquitoes and flies.

Unit VI. LIVES OF SOME SCIENTISTS

- (i) Louis Pasteur, (ii) Jenner, (iii) Sir Ronald Ross, (iv) Madam Curie, (v) Fleming.

6.15. Notes: The study of scientific topics as shown above will be done with scientific invention connected with them and with reference to objects, models or diagrams, where necessary. Visits and excursions will be arranged to farms, gardens, zoos, laboratories, factories and manufacturing centres. Observation and recording with emphasis on practical uses will be insisted through out. Several demonstrations will be arranged by the teachers. The following are a few of the experiments, which are recommended to be performed by students:

I YEAR

1. To prepare oxygen and study its properties.
2. To show how water may be purified by filtration and distillation.
3. To prepare and study hydrogen.

AIR

1. Burning of candle.
2. Germination of seeds.
3. Bell-jar experiments.
4. Tumbler experiments.

WATER

1. Collection of samples of water.
2. Decantation, filtration.
3. Pollution - visit to filters. Treatment of muddy water with alum and mixing with chlorine.
4. Experiments to show properties of water:
 - (i) Finds its own level.
 - (ii) Remains horizontal.
 - (iii) Pressure in all directions.
 - (iv) Incompressible.

WORLD AROUND US

1. To observe the phenomena of sunset, sunrise, clouds, phases of the moon.
2. Marking right directions in school.
3. Visiting zoos.

II YEAR

1. To prepare carbon-dioxide and study its properties.
2. To show the three ways how heat travels.
3. To illustrate refraction of light rays.
4. To study the images formed by convex and concave lenses.
5. To show how water rises in soil and compare different types of soils in their ability to hold water.
6. To demonstrate the process of photo-synthesis.
7. To demonstrate the process of transpiration and osmosis in plants.

III YEAR

1. To make a mercury barometer.
2. To show how hard water may be softened.
3. To determine the mechanical advantages of simple machines, lever, pulley, inclined planes.
4. To demonstrate the working of the steam engine and internal combustion engines.
5. To make a simple voltaic cell.
6. To demonstrate the magnetic effects of the electric current and to construct and operate an electro-magnet.

4. **Social Studies****6.16.** *Remedial Work*

1. Basic concepts

(a) Society; its purposes and uses—forms.

(i) Matriarchal, patriarchal, primitive, civilized.

(ii) Democratic, liberal, authoritarian, totalitarian.

(b) Political organisation

(i) Monarchy, dictatorship, democracy, socialism, communism.

(ii) State, government, executive, legislature, judiciary.

(iii) Army, police, administration and justice.

(iv) Citizen, citizenship (domicile, immigrants).

(v) Vote, voting rights, election, political parties.

6.17. *Teaching of Social Studies and Social Curriculum*

1. The concept and meaning of social studies.
2. The nature and scope of social studies.
3. Objectives of teaching social studies.
4. Devices and aids in teaching social studies.
5. Methods of teaching social studies:
 - (a) The problem solving and project method.
 - (b) The unit method.
 - (c) The work-method and concept of correlation.
 - (d) Correlation of festivals, important days, anniversaries.
- (b) The development of social behaviour among children.
- (c) Social Studies in the Basic school curriculum (supplement it with a study of the present school syllabus).
- (d) Evaluation in social studies and remedial work.

6.18. *Content*

- (a) Our heritage: salient points from the history of the Indian people to emergence of a secular democracy.
- (b) Rights and duties.
- (c) The rise of Indian Republic—The constitution, social, economic and political reforms. Local Government—Panchayat Raj, economic and social reconstruction.
- (d) Indian and World Geography:
 - (i) Geographical features: position, size, relief, climate, vegetation, crops, minerals and industries.
 - (ii) The adventure of social reconstruction—Five Year Plans for agriculture, industry and social development.
 - (iii) Our wealth and its exploitation—transport and communications, ports and highways, trade and commerce
 - (iv) The problems of national integration—unity and differences of language, culture, etc.
 - (v) The problems of international relations.
 - (vi) The future outlook.
- (e) How we govern ourselves, central, state and local administration and association of the people with it.
- (f) Economic organisation in India:
 - (i) Sources of national income—agriculture and industries—role of cooperatives.
 - (ii) Trade and commerce—export and import trade.
 - (iii) Taxation—insurance and banking.
 - (iv) Capital and Labour—trade unions.
 - (v) Planning for prosperity—sarvodaya.
- (g) The world in turmoil:
 - (i) The Russian Revolution—rise of Worker's State. Concept of the Welfare State.
 - (ii) The Second World War.
 - (iii) The U.N.O. and international cooperation.
 - (iv) Use of atomic energy for peace and plenty or for war and destruction.
- (h) India and the international world.
- (i) Living in other parts of the world, e.g., U.S.A., U.S.S.R., Japan, China, Nigeria, Brazil, U.A.R.

Practical work**6.19.** *Projects*

1. Study of the local market.
2. Organising an exhibition of local produce.
3. Visit to local hospitals.
4. Study of means of communication.
5. Study of the local N.E.S. and C.D. projects.
6. Study of the food habits of the people.
7. Study of the village administration.
8. Study of the local crops.
9. Preparation of maps and models of the State and National projects.
10. Study of the habits of the animals and birds in the surroundings.
11. Organising a cooperative society.
12. Study of the local holidays, fairs and festivals.
13. Study and survey of a village or community.
14. Study of maps -map reading.

B. THEORY AND PRACTICE OF EDUCATION**6.20.** *Objectives*

1. To develop understanding of and insights into the developmental needs of children in the student teachers.
2. To acquaint student teachers with the meaning and functions of elementary education in modern India.
3. To help them understand the learning process and the role of the teacher, of books and of activities in the same.
4. To help them understand the importance of work as well as social and natural environment in the educative process.
5. To develop the ability to evolve and adapt methods and techniques suited to the different school situations.
6. To develop ability to build up curricular content around different units of activities and experiences—ability to organise units of lessons in relation to crafts and creative activities, social and physical environment and physical and social living.
7. To develop the ability to individualize instruction.
8. To develop ability to organise school as a self-governing, creative, active, cooperative and democratic community.
9. To develop a proper attitude towards the teaching profession.
10. To develop the ability to conduct empirical child study in order to identify child's needs, urges and attitudes.

11. To develop the ability to improvise and prepare teaching aids.
12. To develop the ability to evaluate growth and the impact of school on the community from time to time—ability to locate strengths and weaknesses of the school programmes—ability to interpret test results and to adopt remedial measures—ability to maintain different types of school records—cumulative records, craft records, etc.

6.21. Courses

- (i) Theory of Education will consist of three papers:
 1. Principles of education.
 2. Principles of Teaching and the Basic School Curriculum.
 3. Problems of Indian Education.
- (ii) Practice of Education (Practice Teaching and Practical work connected with Theory of Education).

Details of Theory Courses

6.22. I. Principles of Education

PART (A)

1. The concept of education: education as a life long process.
2. Infancy and childhood in relation to the needs of education.
3. The growth and development of the child:
 - (a) Physical development—nutrition, personal hygiene and immunity.
 - (b) Development of motor capacities.
 - (c) Language development.
 - (d) Development of understanding (early awareness, remembering, reasoning, concept formation).
 - (e) Development of social behaviour.
 - (f) Development of intelligence.
 - (g) Development of emotional behaviour.
4. Basic aspects of growth and development:
 - (a) Maturation.
 - (b) Differentiation.
 - (c) Integration.
5. Nature, society and productive activity as determinants of direction of growth and development. (Descriptive treatments of the Indian family, village and town as bases of the society).

6. Learning:

- (a) The nature of learning—main laws.
- (b) Learning and transfer of training.
- (c) Reasoning and problem solving.
- (d) Learning and motivation.
- (e) Learning through self activity (curricular and co-curricular).

PART (B)

7. The School:

- (a) Relation of the school to community in the context of Panchayati Raj institutions and community development programmes.
- (b) Buildings and equipment (children's cooperation in arrangement and maintenance).
- (c) The headmaster, staff and time table. (daily as well as weekly routine).
- (d) The organisation of physical education programme, medical check-up programme and co-curricular activities.
- (e) Organising school as a community.
- (f) Discipline, freedom and individuality.
- (g) Agencies complementing school in total education.

8. The teacher—his psychology and role.

9. Basic education—its theory and practice

- (a) Concept of Basic Education—education for life through life.
- (b) Basic education in practice—problems of the Basic School in urban and rural areas.
- (c) Orienting elementary school programme towards the Basic pattern.

PART (C)

10. Evaluation:

- (a) Meaning of evaluation.
- (b) Evaluation for objectives of instruction.
- (c) Evaluating child's growth and development.
- (d) Evaluation practices.
- (e) Constructing, administering, scoring tests and using test results.
- (f) Rating Scales and inventories for evaluating attitude etc.
- (g) Maintenance of cumulative records and profiles.

6.23. *II. Principles of Teaching and Basic School Curriculum*

- (a) Nature of Teaching
1. Teaching as a science.
 2. Teaching as an art.
- (b) Objectives of Instruction (suggesting related elements in the school curriculum).
1. Teaching progress and objectives in teaching.
 2. Determination of objectives.
 3. Knowledge as an objective.
 4. Understanding and application as an objective.
 5. Development of appreciation and aesthetic sense.
 6. Development of imagination.
 7. Development of scientific attitude.
 8. Development of cooperative attitude and social skills.
 9. Development of interests and hobbies.
 10. Skills of the mind—drawing inferences, problem solving etc.
 11. Number skills.
 12. Early language skills.
 13. Manual and drawing skills including productive skills.
 14. Observational skills.
 15. Class and individual norms in setting objectives.
- (c) Devices of Teaching. (How to use them, what precautions to take, and what objectives they achieve in the context of the school curriculum).
1. Narration—exposition and illustration.
 2. Children's self-expression in speech and writing.
 3. Questions and answers
 4. Demonstration of experiments, charts and models.
 5. Construction by pupils.
 6. Dramatisation, debates and group-discussions.
 7. Trips and excursions.
 8. Observation and recording of observations.
 9. Surveys.
- (d) Teaching Aids. (Importance and limitation—suggesting instructional materials in the school curriculum. Various kinds of audio and visual aids, such as:
1. Blackboard sketches etc.
 2. Charts and pictures.
 3. Apparatus for counting.
 4. Apparatus for teaching elementary reading.
 5. Specimens.

6. Collections and museums.
 7. Textbooks.
 8. Films and film strips, records and radio, teaching machines, self-directive material.
- (e) **Methods of Teaching.** (Methods of teaching are combinations of devices).
1. Textbook recitation method.
 2. Lecture-demonstration method.
 3. The Herbartian method.
 4. Project and problem solving method; unit method.
 5. Work-method and theory of correlation.
 6. Drill and review lessons.
- (f) **Basic School Curriculum**
1. The concept of school curriculum—the basic education approach—horizontal and vertical integration.
 2. Learning through life-situations involving craft, nature and society as sources of content and instructional materials
 3. Life-situations involving craft, nature and society as sources of organising learning environment, (community school: teacher-teacher, teacher-pupil, pupil-pupil relationships).
 4. Correlation—the basic method for planning a Basic school curricular programme.
 5. Work method to conduct a Basic school curriculum.
 6. The role of teachers (recapitulation of general principles of procedure and devices of teaching in relation to total school programme).
- (g) **Preparing to Teach**
1. Understanding children—their abilities, previous knowledge, emotions and feelings, etc.
 2. Understanding the school—human relations, equipment, community interest, environment, school procedures, *e.g.*, time table, rules and regulations, etc.
 3. Establishing rapport with children—various ways.
 4. Organising school assembly, physical activities and *bal sabha*.
- (h) **General Principles of Procedure** (suggesting approaches to the school curriculum).
1. Conflicting claims of individualisation and class instruction.
 2. Role of the teacher in instruction.
 3. Maxims of methodical procedure, their uses and limitations.
 4. Procedures in handling large classes.
 5. Procedures in multiple class teaching.

6.24. *III. Current Problems of Elementary Education*

A Problems.

- (a) (i) Concept of education for the people.
- (ii) Problems of universal elementary education.
- (b) Education and productivity.
- (c) Problems of elementary school: large classes, multiple class teaching, wastage and stagnation, irregularity of attendance, adjusting school timing to suit children who have to help their parents at home.
- (d) Individualising instruction: The gifted and the backward children.
- (e) Relationship of work and education: suitability and utility of craft in education.
- (f) Problem of languages in the elementary schools.
- (g) Education and the plans.
- (h) Provision of trained teachers, latest trends and policy.
- (i) Emotional integration and the school.
- (j) Openings for the elementary school leavers—educational and vocational guidance.

B. School Management and Supervision

- (a) Principles of School Management.
- (b) The Headmaster, his role and functions.
- (c) Staff Council and its role.
- (d) Linking the school to the community.
- (e) Concept of supervision: teacher's right and responsibility to seek guidance from Headmaster and supervisors.
- (f) Discipline with a view to developing self directed personality.

6.25. *Practice of Education*

The first thing to do is to allow pupil teachers to observe teaching in practising schools and the demonstration school, if any. While conducting the theory courses, it will be a good exercise to observe actual teaching work and then to work out ways in which a particular idea (discussed in theory courses) can help in improving instruction or school programme or revising school curriculum, as the case may be. The next step could be to provide pupil teachers with the opportunities to familiarise themselves with children, classroom and school environment so that they have a 'feel' of the situation. Perhaps a training in teaching skills like using of devices, aids or conducting of a class to achieve a specific objective of curriculum can also be taken up through what may be termed as 'discrete lessons' programme in which each pupil teacher is expected to teach a few lessons to the lower grades and

few to the higher grades of elementary schools with specific objectives in mind. Here he may gain experience with specific devices and aids planned for use in the class. Then the third step would be to organise group discussions and conferences between pupil teachers, lecturers and practising school teachers to plan a work activity curriculum before the first session of the three year course is out. Classes or particular areas of the school curriculum programme can also be assigned to the pupil teachers so that they may work upon them or prepare themselves for the job during the vacations.

Perhaps the most important and crucial aspects of these programmes are the relationships between lecturers, school teachers and student teachers and the attitude they have towards the whole programme. Cooperation, sympathy and understanding between lecturers and practising school teachers can go a long way to make the programme successful and to let the pupil teachers develop proper teaching behaviour. Perhaps it has to be kept in mind that development of proper teaching behaviour comes about through a gradual and slow process of action and inter-action within the situations and problems of teaching. Only when student teachers develop a work-activity curriculum in cooperation with and under the guidance of lecturers and school teachers, and then conduct each item of the curriculum with clearly conceived purposes under the sympathetic supervision of lecturers and school teachers that they will have opportunities of developing new ways, habits, understandings and attitudes for teaching. Obviously, dissipation of energy in solving minor personal equations, or emphasis or focussing of attention on minor details ignoring the larger perspective and adventure of conducting an educational process, will kill the spirit of such a programme, and direct the effort into such channels as would lead to anything but the development of a proper teaching behaviour.

6.26. Practice of Education

This should include:

- 1 Observation of teaching
- 2 Discussion of demonstrated teaching
- 3 Preparation for teaching:
 - (i) Planning lessons and units
 - (ii) Searching and fashioning material aids, (improvisation of science apparatus)
- 4 Discrete lessons, *i.e.*, one subject to one class
- 5 Correlated lessons
- 6 Multiple class teaching
7. Complete control of a class for some length of time, which would include planning, maintenance of records and registers, evaluation,

maintaining school community relations and organisation of varying types of co-curricular work

- 8 Child study
- 9 Preparing achievement and diagnostic tests, rating scales, etc
- 10 Organising staff meetings to plan school activities which all the teachers of a school have to execute as a group *e.g.*, Parents' Day, school as a community, etc
- 11 Preparation of children's literature
12. Selection and collation of folk songs, folk lores, customs, group songs etc., suited to children of different ages
13. Selection of books and dramas suited to children of different ages and different subject fields
14. Community survey for planning teaching units and for community services
15. Planning curriculum programmes for different age groups.
(This may be integrated with the teaching of theory to make the topics there more meaningful to the student teachers)

6.27. The Programme of Practice of Education may begin in the second year and may be spread over till the end of the second term of the final year. In the first year, the students will only observe. It may be possible to cover this programme in about 60 working days, *i.e.*, about 10 full weeks excluding Sundays. This may be utilised in the following way:

- (a) 18 days of demonstration, observation in related subject teaching.
- (b) 42 days of two blocks one in each year for continuous practice and other activities enumerated above. (Three weeks in the 2nd year and four weeks in the 3rd year).
- (c) Practice teaching will be so organised that student teachers have experience of each of the following groups of classes:—
(a) 1 to 3, (b) 4 & 5, (c) 6 to 8.
- (d) Practice teaching should not be limited to the attached school only, but it should be done in all kinds of schools in the neighbourhood. It may be advisable even to camp out for the purpose. This will facilitate community survey and community service activities as well
- (e) The need for supervision cannot be over-emphasized. But all the lessons need not be supervised, and by the training school personnel only. About 60% supervised lessons might be alright in most cases. In the third year block practice student teachers may progressively be given more freedom and responsibility in planning and execution.

They may be encouraged to deviate from standard procedures to experiment.

At present abstract learnings in child psychology and methods of teaching are seldom tried out for the internalisation of the learnings. This programme should afford the trainee sufficient liberty to deal with different problems in the light of their learning in educational theory, to hypothesize, to experiment and to generalise for themselves.

Note: In the first year more time should be devoted to content subjects and the general personality development, while in the second year content and pedagogy will have about equal time with the third year being devoted mainly to pedagogy. Other aspects of work like crafts, cultural and recreational activities, community life, community service and practice of education will be present throughout. It may be advisable to have examination in content at the end of second year.

C. CRAFTS

6.28. Objectives

- (a) To help the trainee to understand and appreciate the educational, cultural and socio-economic value of crafts in present day India
- (b) To enable the trainee to achieve such a level of efficiency in the theory and practice of the craft that
 - (i) he can bring out the educative value of the craft while teaching it;
 - (ii) he can plan part of instructional material around this activity with the help of children;
 - (iii) he can bring about necessary skill in and attitudes about the craft among children
- (c) To enable student-teacher to assemble, adjust and carry out simple repairs to the implements.
- (d) To help him evaluate the outcomes of craft teaching in terms of skill and educational values.

6.29. While it may be useful for a training school to make provision for teaching of as many crafts as possible, each student-teacher may be required to offer two crafts only. One of these shall be at what is generally known as *Major* level and another at subsidiary level. The student-teacher should acquire sufficient skill in the major craft while he should familiarise himself with all the processes of the major or subsidiary craft. Any craft can be offered both at major or subsidiary level by different students. The subsidiary craft should get about half the time the major craft is given. The major craft should be given at least two periods a day.

6.30. The major craft may be selected by the student teachers keeping the following principles in view:—

- (i) The craft is practised in the locality in which the student-teacher proposes to work.
- (ii) The craft should be rich in educational potentiality and suited to the age-group of students for which the teacher is preparing himself.
- (iii) The craft should be such for which there is no difficulty in procuring raw materials and in disposing off the products in the immediate neighbourhood.
- (iv) The craft should be such that helps development of the student-teacher's personality and suits his aptitude.

6.31. A list of suggested crafts is given below:

1. Clay modelling and pottery.
2. Paper and cardboard work.
3. Kitchen gardening and decorative gardening.
4. Spinning and weaving.
5. Tailoring and needle work.
6. Home craft.
7. Wood work.
8. Metal work and light engineering.
9. Basketry.
10. Fibre work.
11. Agriculture.
12. Sericulture.
13. Poultry and bee keeping.
14. Bakery.
15. Leather work.

6.32. Targets may be laid not so much in terms of production but in terms of skills and teaching skills. Student-teachers should be permitted to take away results of their work by paying cost of raw material.

6.33. *Note:—*(i) All the staff members should participate in some craft activity or the other so that the institution has the right atmosphere and it is integrated with the total training programme through reference to it during theory classes.

(ii) The Committee recommends that all craft syllabi should emphasize the following:

- (a) Familiarity with the various techniques and processes involved in the craft.
- (b) Acquaintance with the tools and raw materials used.

- (c) The economics of the craft.
 - (d) Record keeping in connection with the craft work.
 - (e) Organisation of craft room for facilitating teaching-learning situation and maximising the utilisation of tools and equipment.
 - (f) Evaluation of the outcome of craft teaching in terms of knowledge, skills and attitudes.
- (iii) Courses in some crafts both at major and subsidiary level are indicated in Appendix III. However, the Committee feels that each training institution will have to adapt these in accordance with the place and syllabus of craft in the elementary schools it serves and the knowledge of craft with which the student/teachers come to it.

D. ART AND MUSIC : RECREATIONAL AND CULTURAL ACTIVITIES

6.34. *Objectives*

1. To develop and strengthen aesthetic sense of the student-teachers.
2. To enable them to guide the aesthetic development of the pupils under their charge.
3. To provide opportunities for creative self expression to the trainees and for fruitful utilisation of leisure.
4. To enable them to teach the programmes in schools where specially trained teachers are not available.
5. To offer them pursuits of healthy recreation.
6. To develop in them the ability to participate in and organise folk music, community singing, drama, recitation, observance of festivals and national days.
7. To inculcate in them the ability to appreciate beauty in form, colour and sound—creative arts.

6.35. *The Programme*

This may consist of the following:

i. Art and Art Appreciation—Theory

- (i) The meaning of art, the different means of expression, e.g.,
 - (a) Painting
 - (b) Sculpture
 - (c) Music
 - (d) Dance-drama
 - (e) Literature
 - (f) Architecture
 - (g) Photography.

(These arts are to be discussed in brief so that pupil-teachers may have the basic idea of their characteristics and differences among them. But painting is to be discussed in more detail as student-teachers will be dealing more with this in their actual profession.)

- (ii) Composition : a general term applied to all arts. Composition in painting and the factors involved in it, *i.e.*, line, form, space, colour, tone (light and shade), tone (intensity of colour), texture and perspective.
- (iii) (a) Design: Broader meaning of design as planning, as giving an original shape.
 - (i) Design in fine art.
 - (ii) Design in craft.
 - (iii) Difference between art and craft
- (b) Types of designs :
 - (i) Ornamental design.
 - (ii) All-over design.
 - (iii) Decorative design.
 - (iv) Geometrical design.
 - (v) Motif in design.
 - (vi) Motifs taken from nature.
 - (vii) Repetition of the motif.

2. Art—Practicals

1. (a) Drawing and painting (creative). Compositions in water colour, in paper-tearing and paper-cutting. Students should prepare compositions on different subjects drawn from life. They should also make a few compositions in paper-tearing, or paper-cutting without any subject (abstract) in order to improve their sense of balance and composition and arrangement of colours.
 - (b) Free-hand sketching in pencil, ink and colour of different plants, leaves and flowers, landscapes and different objects.
 - (c) Design: decorative and all-over designs. Pattern painting. Alpana. Greeting cards.
 - (d) Lettering and decorative writing.
- 11 Preparation of teaching aids: chart, flash card, flannelgraph, strips,

3. Teaching of Art and School Curriculum

1. Child art. Creative urge. Spontaneous self-expression.
2. Stages of development in child art:
 - (a) Scribbling
 - (b) Pre-schematic
 - (c) Schematic
 - (d) Decisive stage.
3. Methods of teaching art to children:
 - (a) The traditional approach—'look and copy'.
 - (b) The new approach—free creation of the child—freedom in expression.
 - (c) The work method—artistic creations during participation on work activities.
4. Place of art in Basic school curriculum.
5. Evaluation in art.

4. Music

1. Place of music and drama in the elementary curriculum value of rhythm for personality development.
2. Place of creative drama in the education of children.
3. Selection of suitable songs for different occasions for individual community singing, suited to children and the student-teachers themselves and practising them.
4. Collection of devotional marching, seasonal work songs and folk songs and practising the same.
5. Action singing.
6. Collection and singing of national and patriotic songs.
7. Knowledge about Indian dances and musical instruments of different parts and participation in folk and group dances.
8. Acquaintance with simple ragas, life history of some celebrated musicians, dancers and dramatists and actors.

5. Recreational and Cultural Activities

6.36. Organisation of co-curricular activities—clubs, study circles, home-room, library and debating societies, wall magazine, excursions, non-denominational prayer meeting. Seeking community cooperation for such activities.

Note : The programme in this area is not exhaustive as it is likely to vary according to the abilities with which student teachers come to

the teacher education institutions. The committee feels that there are wide differences in this regard from one part of the country to the other.

E. COMMUNITY LIVING AND COMMUNITY SERVICE INCLUDING PHYSICAL EDUCATION AND HEALTH

6.37. Objectives

1. To give the student teachers experience of democratic cooperative community living and to foster in them the ability to organise a school as such.
2. To enable them to bring school and community closer for mutual service and benefit.
3. To develop a sense of responsibility, leadership and respect for dignity of man.
4. To develop an understanding of the importance of physical and mental health as an integral part of one's professional equipment and the development of attitudes and habits which will promote and maintain a clean and healthy life.
5. To impart knowledge of the facts and principles upon which the promotion of good health depends and of the methods of maintaining cleanliness and of preventing disease.
6. To develop in the student-teachers self reliance, initiative and determination in the face of difficulties.
7. To acquaint them with the part played by National Extension Service and Community Development Blocks in improvement of the community around the school and determine the part that the school can and should play in the same.

6.38. Activities

Self-government. (This should be the key note of all community activities).

1. The institution should be organised as a free and self-governing unit of cooperative and productive work. It should assume responsibilities for carrying out all the necessary activities of the community in accordance with the principles of Basic Education. Life in the institution is to be regulated by the representatives elected by the members of the community on the basis of a constitution approved by the head of the institution. This will make

provision for a number of such representatives to undertake the various activities in the institutions such as food, craft, organisation of social and cultural activities, health and safai social service, cooperative store, etc. The institution shall also fix up the duties and responsibilities of these persons and the term of office and other related matters. The representatives will be responsible for the successful organisation of the kitchen and other community life activities and submit the accounts to the general body every month for its approval. (The purpose herein would be citizenship-training and a practical demonstration of what the student teachers can do in the schools.)

2. Routine activities: (a) Prayer (b) Safai (c) Kitchen and other community duties (d) Newspaper reading (e) Self-study.
3. Organising health programmes in school and community.
4. *Shramadan and Social Service Camps.*
 - (a) Manual work for betterment of villages.
 - (b) Socio-economic survey to know the needs of villages and appreciate the relationship between these needs and contents of the school syllabus.
 - (c) Rural hygiene and sanitation programmes with the active participation of the community.
 - (d) Visits to National Extension Service Centre, Work projects, Panchayat Offices etc., and discussions with the workers, officers concerned and experts and securing their active co-operation and guidance in the camp programme.
 - (e) Organising sports-meets and recreational programmes for the community.
5. Participation in sports, games, P.T., scouting, girl guiding and Red Cross activities.
6. Organisation of and participation in festivals, national days, etc.

F. SPECIALIZATION

6.39. Objectives

1. To prepare specialist teachers to handle the subject more efficiently.
2. To give the above average student-teacher chance to utilise his abilities and follow his inclination farther than the average student-teachers.

6.40. *Course Content*

These are indicated in Appendix III.

Students may offer any one of the following:—

1. One Craft
2. Physical Education
3. Hindi
4. Art
5. Music

6.41. Elementary teacher education institutions may organise specialisation courses in other areas according to the local needs and resources available.

CHAPTER VII

Programme for Post-Secondary Candidates

THE PROGRAMME shall run for two years and will be divided into the following parts:

- A. General Education
- B. Content-cum-Methodology Courses
- C. Theory and Practice of Education
- D. Crafts
- E. Art, Music, Recreational and Cultural Activities
- F. Community Life and Community Service including Physical Education and Health
- G. One additional optional subject (only for those who want to offer it and are considered suitable)

7.02. Distribution of Marks

A.	General Education	Non-Examination	
B & C.	Theory (including content course) and Practice Teaching	600	} 1000
D.	Crafts	200	
E & F.	Art, Music, Community Life and Community Service	100	
		100	
G.	Additional Optional	100	

Detailed Courses

A. GENERAL EDUCATION

7.03. Objectives

1. To groom the student teacher into a well educated and cultured person by broadening his vision and giving him a glimpse of the horizons of knowledge.
2. To help him to function as an effective citizen working for the new social order.

3. To help him to understand contributions of the Sciences, Arts and Literature to life and living.

Courses

7.04. Literature and Life

1. Literature for a better and cultured living ; the need for the expression and communication of aesthetic and emotional experiences; the subtle and beautiful ways of expression through literature. Literature as a source of general ideas and new-points.
2. The nature of literature ; the inter-relationship of literature and society.
3. Evolution of the modern language from the classical language.
4. Main trends in modern literature.
5. Children's literature (selections from important sources).
6. Comparative Indian literature—common roots of Indian languages, common motifs of early literature ; assimilation of western literary forms and influences; mutual influences in literature of modern Indian languages.

Note: No bibliography is suggested here because it will have to be drawn up for each language separately and even new books written.

7.05. Mathematics for Citizens

1. Mathematics and modern living ; the universal language of mathematics. The need for acquaintance with the mathematical language to understand the circumstances that shape our life in the twentieth century, and to be able to communicate as an effective citizen of a democratic industrial society which seeks to develop itself through planning.
2. Mathematics and mathematician; nature and scope of mathematics. Qualities of a Mathematician.
3. The Greeks and elementary mathematics ; the Greek geometry. The nature of theorem and proof-axioms and formulae, etc.
4. The orient after the decline of Greek society; Hindu-Arabic Numerals. The beginnings of Algebra.
5. The industrial and social revolution ; democracy and rise of trade and commerce ; the growth of social sciences ; statistician and statistical methods ; budgeting, taxation, investment and accounts ; the metric system.

7.06. Science and the Modern World

1. Science and modern living: The need for acquaintance with science to understand the circumstances which shape our life and living.
 - (a) Science and modern thought.
 - (b) Science and modern living.
2. The nature of Science ; science as a human activity through which man acquires knowledge and understanding of nature and capacity to adapt to and to modify his environment.
3. Myths, magic and science ; the palaeolithic society:
 - (a) The harnessing of fire, cookery and roasting, prepared skins—Palaeolithic chemistry.
 - (b) Stone implements, tools and weapons—palaeolithic geology and technology.
 - (c) Fishing and hunting—palaeolithic physics (general properties of matter, dynamics).
 - (d) Animal and plant lore—palaeolithic biology (medicine and surgery).
4. The neolithic revolution. Agriculture and animal husbandry. The beginnings in astronomy, measurement of time, space and things. Early settlements—baking, brewing, pottery—alchemy. Spinning, weaving, hut making. The beginnings of geometry, mechanics and civil engineering
5. The birth of rational sciences.
 - (a) The Bronze and Iron age. Metallurgy and elementary chemistry.
 - (b) The harnessing of animal, water and wind—elementary physics and mechanics.
 - (c) Medicine and surgery in Egypt, Babylon, India and China.
6. The Renaissance and birth of modern science
 - (a) Humanism.
 - (b) The Copernican Revolution.
 - (c) Chemistry and medicine, anatomy, physiology and botany, magnetism and electricity.
 - (d) Galileo and Newton. Science comes of age. The Academies. The Newtonian synthesis, gravitation, mass and weight, optics and light.
 - (e) Heat and energy—steam engine—birth of industrial revolution.
 - (f) Chemistry, chemical action, solutions and colloids.

7. The explosion in human knowledge (the 20th century).
 - (a) Theory of Evolution
 - (b) Genetics
 - (c) Geology and oceanography
 - (d) Biochemistry, physiology and psychology.
 - (e) Virus and immunity—Preventive medicine. Antibiotics.
 - (f) Einstein and theory of relativity.
 - (g) Synthetic materials.
 - (h) The coming of nuclear age—Cathode rays and electrons, radioactivity, X-rays, positive rays and isotopes—the structure of atom.
 - (i) The new view-point of universe.
 - (j) The solar system. The star and nebulae. The structure of stars. Stellar evolution.
 - (c) The age of artificial satellites and planets.

7.07. Social Studies

1. Geo-physical factors influencing human life.
 - (a) The zones.
 - (b) Climatic factors.
 - (c) Permanent winds.
 - (d) Rocks and soil.
 - (e) Rotation and revolution of the earth. Day, night month, year, seasons and
 - (f) Weather.
2. Our being and becoming
 - (a) Evolution of homo-sapiens.
 - (b) Pre-palaeolithic societies—family, clan, rube.
 - (c) Palaeolithic societies—early skills.
 - (d) Neolithic revolution—village, city.
 - (e) Discovery of metals and urbanisation, states, empires.
3. Law and government.
 - (a) First table of laws in Sumer—Akkad (2200 B.C.).
 - (b) Laws of Hammurabi (1700 B.C.—Babylonian civilisation).
 - (c) Kings and chiefs make their laws (classical and medieval civilisation).
 - (d) Democracy in Athens, Rome.
 - (e) State and law in Ancient India.
4. Kings, priests and people.
 - (a) Beginnings of religion in different parts of the world.
 - (b) Renaissance and emergence of western society from the dark age.

- (c) Duel between kings and parliaments and between church and State (A brief survey of European History).
- (d) Reformation in Europe and Reform Movements in India.
- 5. The age of revolutions and rise of industrial society.
 - (a) Machine liberates man from toil. The Industrial Revolution.
 - (b) The rise of political democracy. The French Revolution.
 - (c) The rise of international trade and commerce.
 - (d) Colonialism and imperialism.

7.08. Art and Art Appreciation

Note : There are two main purposes of this course. First, student teachers should have adequate knowledge of child art and the capacity to appreciate it and promote it. Second, they are to be made aware of the basic principles of art and its evolution so that they may understand the values of art in their life and improve their aesthetic sensibility.

1. Development of art.
 - (a) Pre-historic.
 - (b) River-valley civilisations—Pyramids—Mohenjodaro—Harappa.
 - (c) Classical architecture and sculpture.
 - (i) Greece and India
 - (ii) Gandhara art—the synthesis
 - (iii) Age of Indian architecture and sculpture (200 A.D.-1400 A.D.)
 - (iv) Indian fresco-paintings
 - (v) Ajanta caves.
 - (d) Art in the age of belief: Christian—Buddhist—Jain—Taoist-Islamic architecture.
 - (i) Renaissance art
 - (ii) Indian miniature paintings.
 - (iii) Mughal architecture—a synthesis of Islamic and Hindu architecture.
 - (e) The rise of democratic, industrial society and evolution of a universal idiom in art.
 - (i) Short account of impressionism, expressionism, abstract art.
 - (ii) Their influences on Indian art.
 - (iii) Commercial art.
 - (f) Modern Indian art.

2. (a) The plastic arts.
 - (i) painting
 - (ii) sculpture
 - (iii) architecture.
- (b) Other visual arts.
 - (i) dance, drama.
 - (ii) theatre.

Similarities and differences between (a) and (b).

3. (a) Colour: psychological and philosophical side. Value of colours in life, effect of colours on the moods of the man. Emotional reaction of the human being towards colour.
 - (b) Technical side of colours. Primary colours. Secondary colours. Ostwal colour circle. Harmonious and contrasting colours. Monochrome. Warm and cool colours.
 4. Some view-points of art appreciation—sense of beauty, balance, proportion, harmony, contrast, movement, rhythm, monochrome, depth, impact, unity, expression, pattern.
 5. Music, dance and drama.
 - (a) The main forms of Indian dancing—Kathakali, Manipuri, Kathak, Bharat Natyam and other forms. The ballet. Modern Indian dance.
 - (b) The main schools of Indian music. Classical and light. Classical music, the principal ragas and raganis. Film music, ghazal and light music.
 - (c) The Indian tradition in drama. Folk drama—Ramlila, Nach, Yatra, Nautanki, etc.
 - (d) Modern Indian theatre.
 - (e) Modern Indian cinema.
- 7.09. Note:** The committee believes that general education courses can succeed only when teacher educators are made ready for it and the library is well equipped.

B. CONTENT-CUM-METHODOLOGY

7.10. (a) Objectives:

1. To make up the deficiencies in the student-teacher's academic preparation from the point of view of the needs of the elementary school, student-teachers are expected to handle all subjects upto standard V and some subjects upto VIII.
2. To familiarise student teachers with the elementary-school syllabus.

3. To deepen his knowledge in the academic subjects upto the higher secondary level and to enable him to use it properly.
4. To develop the student teacher's ability to use language effectively (oral and written)
5. To develop attitudes of scientific thinking, problem solving, identifying relationships and appreciation in him.
6. To give him necessary and adequate competence to help children effectively in learning the academic subjects.
7. To help him evaluate the outcomes of the learning experiences of children.

(b) The courses:

1. Mother-tongue/regional language
2. Mathematics
3. Science
4. Social Studies, and
5. Second Indian Language/Hindi.

Under each subject there are three sub-sections: (i) remedial work, (ii) methodology peculiar to a subject, and (iii) content.

7.11. 1. **Mother-tongue/Regional Language**

(A) *Remedial Work*

1. Consultation of a dictionary or reference books.
2. Correction of speech defects and pronunciation mistakes.
3. Correction of spelling errors.
4. Correction of errors of number, gender and person.
5. Practice of punctuation.
6. Knowledge of idioms, proverbs and phrases.
7. Composition: oral and written-letter writing, essay and precis writing.
8. Specific linguistic problems related to the mother-tongue—syntax and usage.
9. Mechanics of the language: grammar, rhetoric, prosody and figure of speech. (Their functional aspects should be emphasized).

(B) *Teaching of Mother-tongue and School Curriculum*

1. Objectives of teaching mother-tongue.
2. (a) Early training in speech.
(b) Common defects—physical and emotional and their rectification.
3. Oral self-expression, narration of stories, events, etc. Dramatisation of stories, events, etc.

4. (a) Teaching of reading to beginners.
 - (i) Reading readiness programme.
 - (ii) Methods of teaching reading, e.g., phonic method, look-and-say method, story method, composite method, sentence method, etc.
- (b) Loud reading and silent reading.
5. (a) Teaching of writing to beginners.
 - (i) Mechanics of writing.
 - (ii) Writing, transcription and calligraphy.
- (b) Dictation, letter writing, short essays.
- (c) Correction of errors of spelling and syntax.
6. (a) Teaching of prose and poetry.
- (b) Text books and supplementary reading books.
- (c) Reading habits and reading interests.
7. The place of mother-tongue in child's life.
8. Growth of vocabulary and development of language among children.
9. The place of mother-tongue in Basic school curriculum; correlated teaching programme and work-method.
10. Mother-tongue curriculum for Basic school (supplement it with and study of the present school syllabus).

Note : To participate effectively in the work activities, being conducted in a school, a child has to communicate orally or by writing. There will always be numerous occasions when a child has to read or write announcements, notices, diary, etc. He may contribute to the school magazine, fill up record forms, read or write letters, participate in the programme of the Bal Sabha etc. All these activities are specifically related to learning and mastery of the mother-tongue. Besides, the aesthetic and emotional expression of experience may be included in the curriculum programme.

11. Evaluation in mother-tongue and remedial teaching.

(C) *Content* :

1. Language and literature:—History
 - (a) Early period.
 - (b) Middle period.
 - (c) Modern period.
2. Literary appreciation—form, technique (style) and value (content) of literature.

3. A selection from representative poets and writers of different periods and different schools.

7.12. 2. Mathematics

(A) Remedial Work

1. Mathematical concepts:
Meaning (or translations) of word directions—writing numbers, fractions, money, roots, abstract numbers (symbols), formulae, etc.
2. Mathematical operations:
(a) Four fundamental rules.
(b) Elementary geometrical figures.
(c) Graphs.
3. Mathematical reasoning :
Problems of unitary method, average, area, percentage and simple interest, profit and loss equations.

(B) Teaching of Mathematics and School Curriculum

1. Number, size and form in craft and life.
2. Growth of number concepts and recognition of size and form among children.
3. Objectives of teaching mathematics.
4. Methods of teaching numeration and notation and four fundamental rules.
5. (a) Analytic and synthetic, inductive and deductive approaches in teaching of mathematics.
(b) The Herbartian, problem solving project and unit methods applied to teaching of mathematics.
(c) Work-method applied to teaching of mathematics.

Note: The work-method involves the following:

- (i) Perception of the problem—what is to be done, (ii) developing plan of work, (iii) carrying out different activities of the work, (iv) review and modification of the plan of work during execution, (v) conclusion of work-plan-assimilation and organisation of understandings, skills, attitudes, etc., acquired during work-activity, (vi) use of these in future work-plans and activities.
6. The place of mathematics in Basic school curriculum.
7. Mathematics curriculum for Basic schools (supplement it with a study of the present school syllabus).
8. Evaluation in mathematics and remedial work.

(C) Content

Number Concept; numeration system; concept of natural numbers, fractions, rational numbers, negative numbers; real numbers; order on number line; absolute value; operations of addition, subtraction multiplication, division and their properties; factors; primes and exponents; radicals; polynomial and rational expressions; equations and inequalities; ratios and percents; graphs; formulae—area, volume of solids, interest, etc.; functions and their graph.

Line; plane; angles and triangles; congruence; parallel lines in a plane; parallel lines and planes; perpendicular lines and planes in space; polygons and their areas; similarity and symmetry; circles and spheres; areas of circles and sectors; solids such as prism, pyramid, cylinder, cone, sphere and their volumes.

Collection and classification of data; graphic representation of data; Averages—mean, median mode; standard deviation; correlation.

7.13. 3. General Science**(A) Remedial Work**

1. Concepts for understanding the natural phenomenon.
 - (a) Matter and weight, energy (forms of energy, transformation of energy) power, force pressure.
 - (b) Atoms and molecules, elements and compounds, physical and chemical change.
 - (c) Density, relative density, heat and temperature, electric power, time, etc.
 - (d) Simple machines; wheel and axle, lever, pulley, etc.
2. Living things.
 - (a) Characteristics, habitat food, reproduction and life history of common animals and pets, birds, reptiles and insects.
 - (b) The human body—its organs—basic functions and major systems, protection from common diseases, first aid, food and balanced diet.
 - (c) Characteristics and growth of plants.
3. Non-living things.
 - (a) Water, air, seasons and weather.
 - (b) Rocks and minerals.
4. Our universe.

Earth and solar system, principal constellations in the sky.

(B) *Teaching of General Science and School Curriculum*

1. (a) Science and its impact on human society, thought and living.
(b) The scientific method
(c) The scientific attitude
2. (a) The concept of general science
(b) The nature and scope of general science
3. Objectives of teaching general science
4. Methods of teaching general science
5. Work-method and teaching of general science.

Note: The work-method involves the following:

- (i) Perception of the problem, (ii) planning of the work programme, (iii) carrying out of the plan, (iv) review and modification during execution, (v) conclusion of the work-plan. These processes match well with: (a) observation, (b) hypothesis, (c) experimentation, and (d) induction aspects of the scientific method. Identification and understanding of inorganic or organic (physical chemical or biological) relationships occurring in the work-activity become possible by using scientific concepts and techniques developed by man down the ages. These scientific concepts and techniques can be learnt while participating in the work-activity programme planned in the school
6. The place of general science in Basic school curriculum.
 7. General Science curriculum for Basic school (supplement it with a study of the present school syllabus).
 8. Science club, science museum and school park.
 9. Evaluation in general science, and remedial work

(C) *Content*

May be the same as prescribed for the Higher Secondary Course from time to time.

7.14. 4. Social Studies(A) *Remedial Work*

1. Basic Concepts
 - (a) Society
 - (i) Matriarchal, patriarchal, primitive, civilized.
 - (ii) Democratic, liberal, authoritarian, totalitarian
 - (b) Political organisations

- (i) Monarchy, dictatorship, democratic, socialist, communist.
 - (ii) State and Government: Executive, Legislature and the Judiciary.
 - (iii) Citizen, citizenship (Domicile, immigrants)
 - (iv) Vote, voting rights, election, political parties.
2. Familiarisation with the following:
- (a) The world—maps and map reading.
 - (b) India.
 - (i) The Socialist Democratic Republic.
 - (ii) Struggle for Independence and contributions of important leaders.
 - (iii) Religions and religious leaders.
 - (iv) Leaders of social and cultural movements.
 - (c)
 - (i) How we govern ourselves
 - (ii) The Five Year Plans
 - (iii) Our neighbours.
 - (d) United Nations Organisation.

(B) *Teaching of Social Studies and Social Curriculum*

1. The concept and meaning of social studies.
2. The nature and scope of social studies.
3. Objectives of teaching social studies.
4. Devices and aids in teaching social studies.
5. Methods of teaching social studies.
 - (a) The problem solving and project method.
 - (b) The unit method.
 - (c) The work-method and concept of correlation.
6. The development of social behaviour among children. Celebration of national festivals and days.
7. Social studies in the Basic school curriculum (supplement it with a study of the present school syllabus).
8. Evaluation in Social Studies and remedial instruction.

(C) *Content*

- (a) Salient points from the history of the Indian people and emergence of a secular democracy.
- (b) Rights and duties.
- (c) Constitution of India and political reforms. Social and economic reconstruction.

- (d) Indian and World Geography
- (i) Geographical features; position, size, relief, climate, vegetation, crops, minerals and industries.
 - (ii) Our relations with other countries.
 - (iii) The adventure of social reconstruction—Five Year Plans for agriculture, industry and social development.
 - (iv) The problems of national integration.
 - (v) The problems of international relations.
 - (vi) The future outlook.
- (e) The world in turmoil
- (i) The mounting demand for economic and social democracy—socialism, communism.
 - (ii) The first world war.
 - (iii) The Russian Revolution—rise of workers' State—concept of the Welfare State.
 - (iv) The second world war.
 - (v) The U.N.O. and international cooperation.
 - (vi) Use of atomic energy for peace and plenty or for war and destruction.

C. THEORY AND PRACTICE OF EDUCATION

7.15. Objectives

1. To develop in the student-teacher's understanding of and insights into the developmental needs of children.
2. To acquaint the student-teachers with the meaning and functions of elementary education in modern India.
3. To help them to understand the learning process and the role of the teacher, of the books and of the activities in the same.
4. To help them understand the importance of work as well as the social and natural environment in the educative process.
5. To develop in the student-teachers the ability to evolve and adapt methods and techniques suited to the different school situations.
6. To develop in them the ability to build up curriculum content around different units of activities and experiences; ability to organise units of lessons in relation to crafts and creative activities, social and physical environment and physical and social living.
7. To develop in them the ability to individualise instruction.
8. To develop in them the ability to organise the school as a self-governing, creative, active, cooperative and democratic community.

9. To develop a proper attitude towards the teaching profession among the student teachers.
10. To develop in them the ability to conduct empirical child study in order to identify the child's needs, urges and attitudes.
11. To develop the ability among the student teachers to improvise and prepare teaching aids.
12. To develop the ability to evaluate growth and the impact of school on the community from time to time—ability to locate strengths and weaknesses of the school programmes; ability to interpret test results and to adopt remedial measures; ability to maintain different types of school records—cumulative records, craft records, etc.

7.16. Courses

(i) *Theory of Education*

1. Principles of Education.
2. Principles of Teaching and the Basic school curriculum
3. Problems of Indian Education

(ii) *Practice of Education:*

Practical teaching and practical work connected with theory of education.

DETAILS OF THEORY COURSES

7.17. 1. Principles of Education

PART (A)

1. The concept of education.
2. Infancy and childhood in relation to the needs of education.
3. The growth and development of the child.
 - (a) Physical development—nutrition, personal hygiene and immunity.
 - (b) Development of motor capacities.
 - (c) Language development.
 - (d) Development of understanding (early awareness, remembering, reasoning, concept formation).
 - (e) Development of social behaviour.
 - (f) Development of intelligence.
 - (g) Development of emotional behaviour.

4. Basic aspects of growth and development.
 - (a) Maturation.
 - (b) Differentiation.
 - (c) Integration.
5. Nature, society and productive activity as determinants of direction of growth and development, (descriptive treatment of the Indian family, village and town as basis of the society).
6. Learning.
 - (a) The nature of learning.
 - (b) Learning and transfer of training.
 - (c) Reasoning and problem solving.
 - (d) Learning and motivation.

PART (B)

7. The Curriculum.
 - (a) The Basic school curriculum (horizontal and vertical integration).
 - (b) Learning and the Basic school curriculum.
 - (c) Learning through self-activity (curricular and co-curricular programmes).
8. The School.
 - (a) Relation of the school with community in the context of Panchayati Raj institutions and community development programme.
 - (b) Building and equipment—'Safai' programme in school.
 - (c) The headmaster, staff and time table (daily, weekly, monthly and annual programme of work).
 - (d) The organisation of physical education programme, medical check-up.
 - (e) Other co-curricular activities.
 - (f) Discipline, freedom and individuality.
9. The teacher—his psychology and role.
10. Basic Education—its theory and practice.
 - (a) Concept of Basic education.
 - (b) Basic education in practice—problems of the Basic school in urban and rural areas.
 - (c) Orienting elementary school programme towards the Basic pattern.

7.18. 2. Principles of Teaching and Basic School Curriculum**(A) Nature of Teaching**

1. Teaching as a science.
2. Teaching as an art.

(B) Objectives of Instruction : (Suggesting related elements in the school curriculum.)

1. Teaching progress and objectives in teaching.
2. Determination of objectives.
3. Knowledge as an objective.
4. Understanding and application as an objective.
5. Development of appreciation.
6. Development of imagination.
7. Development of scientific attitude.
8. Development of co-operative attitude and social skills.
9. Development of interests and hobbies.
10. Skills of the mind—drawing inferences, problem solving, etc.
11. Number skills.
12. Early language skills.
13. Manual and drawing skills.
14. Observational skills.
15. Class and individual norms in setting objectives.

(C) Devices of Teaching : (How to use them, what precautions to take, and what objectives they achieve in the context of the school curriculum.)

1. Narration, exposition and illustration.
2. Children's self-expression in speech and writing.
3. Questions and answers.
4. Demonstration of experiments, charts and models.
5. Construction by pupils of charts and models.
6. Dramatisation, debates and group-discussion.
7. Trips and excursions.
8. Observations and recording of observations.
9. Surveys.

(D) Teaching Aids : (Importance and limitation—suggesting instructional materials in the school curriculum.)

1. Blackboard.
2. Charts and pictures.
3. Apparatus for counting and number.
4. Apparatus for teaching elementary reading.

5. Specimens.
 6. Collections and museums.
 7. Textbooks.
 8. Films and film-strips, records and radio, teaching machines, self-directive material.
- (E) *Methods of Teaching* : (Methods of teaching are combinations of devices.)
1. Textbook recitation method.
 2. Lecture-demonstration method.
 3. The Herbartian method.
 4. Project and problem solving method; unit method.
 5. Work-method and theory of correlation in Basic education.
- (F) *Basic School Curriculum*
1. The concept of school curriculum.
 2. Life-situations involving craft, nature and society as sources of content.
 3. Life-situations involving craft, nature and society as a source of instructional materials.
 4. Life-situations involving craft, nature and society as sources of organising learning environment. Community school: teacher-teacher, teacher-pupil, pupil-pupil relationships.
 5. Correlation—the basic method for planning a Basic school curriculum programme.
 6. Work-method to conduct a Basic school curriculum.
 7. The role of teachers (recapitulation of general principles of procedure and devices of teaching in relation to total school programme.)
- (G) *Preparing to Teach*
1. Understanding children—their abilities, previous knowledge, emotions, and feelings, etc.
 2. Understanding the school—human relations, equipment, community interest, environment, school procedures, e.g., time table, rules and regulations, etc.
 3. Establishing rapport with children—various ways.
 4. Organising school assembly, physical activities and Eal Sabha.
- (H) *General Principles of Procedure* : (suggesting approaches to the school curriculum).
1. Conflicting claims of individualisation and class instruction.
 2. Role of the teacher in instruction.
 3. Maxims of methodical procedure, their uses and limitations.

4. Procedures in handling large classes.
5. Procedures in multiple class teaching.

(I) *Evaluation*

1. Meaning of evaluation
2. Evaluating for objectives of instruction
3. Evaluating child's growth and development
4. Evaluation practices
5. Constructing tests in school subjects
6. Scoring tests and using test results.
7. Rating scales and inventories for evaluating attitudes, etc.
8. Maintenance of cumulative records and profiles.

7.19. 3. Current Problems of Elementary Education

- (i) A brief review of the development of elementary education in India.
- (ii) (a) Concept of education for the people.
- (b) Education and productivity.
- (c) Problems of Elementary School: large classes, multiple class-teaching, wastage and stagnation, irregularity of attendance, adjusting school timing to suite children who have to help their parents at home.
- (d) Individualising instruction: the gifted and the backward children.
- (e) Relationship of work and education: suitability and utility of craft in education.
- (f) Problem of languages in the elementary schools.
- (g) Education and the Plans.
- (h) Emotional Integration and the school.
- (i) Qualitative improvement in elementary education.

7.20. 4. Practice of Education

The first thing to do is to allow pupil teachers to observe teaching in practising schools and the demonstration school, if any. While conducting the theory courses it will be a good exercise to observe actual teaching work and then to work out ways in which a particular idea (discussed in theory courses) can help in improving instruction or school programme or revising school curriculum, as the case may be. The next step would be to provide pupil teachers with the opportunities to familiarize themselves with children, class room and school environment so that they have a 'feel' of the situation. Perhaps a training in teaching skills like using of devices, aids or conducting of a class to achieve a specific objective of curriculum, can also be taken up—through what may be termed as 'discrete lessons' programme

in which each pupil teacher is expected to teach a few lessons to the lower grades and few to the higher grades of elementary schools with specific objectives in mind. Here he may gain experience with specific devices and aids planned for use in the class. Then the third step would be to organise group discussions and conferences between pupil teachers, lecturers and practising school teachers to plan a work-activity curriculum before the first sessions of the two-year course is out. Classes or particular areas of the school curriculum can also be assigned to the student-teachers so that they may work upon them or prepare themselves for the job during the vacations.

Perhaps the most important and crucial aspects of these programmes are the relationships between lecturers, school teachers and pupil-teachers, and the attitude they have towards the whole programme. Cooperation, sympathy and understanding between lecturers and practising school teachers can go a long way to make the programme successful and to let the pupil-teachers develop proper teaching behaviour. Perhaps it has to be kept in mind that the development of a proper teaching behaviour comes about through a gradual and slow process of action and interaction within the situations and problems of teaching. Only when pupil teachers develop a work-activity curriculum in cooperation with and under the guidance of lecturers and school teachers, and then conduct each item of the curriculum with clearly conceived purposes under the sympathetic supervision of lecturers and school teachers will they have opportunities of developing new ways, habits, understandings and attitudes for teaching. Obviously, dissipation of energy in solving minor personal equations, or emphasis or focussing of attention on minor details ignoring the larger perspective and adventure of conducting an educational process, will kill the spirit of such a programme and direct the effort into such channels as would lead to anything but the development of a proper teaching behaviour.

7.21. Thus Practice of Education should include:

1. Observation of teaching
2. Discussion of demonstrated teaching.
3. (a) Preparation for teaching—including searching and fashioning aids, planning lessons and units (improvisation of science apparatus).
- (b) Preparation of specimen curricular programmes, or learning experiences in different subjects for different classes with a view to achieve certain specified objectives.
4. Discrete lessons, *i.e.*, one subject to one class.

5. Correlated lessons.
6. Multiple class teaching.
7. Complete control of a class for some length of time, which would include planning, maintenance of record and registers, evaluation, maintaining school community relations and organisation of varying types of co-curricular work.
8. Child study.
9. Organising staff meetings to plan school activities which all the teachers of a school have to exercise as a group *e.g.*, Parents' Day, school as a community etc.
10. Preparation of children's literature.
11. Selection and collection of folk songs, folk lore, customs, group songs etc., suited to children of different ages.
12. Selection of books and dramas suited to children of different subject fields.
13. Community survey for planning teaching units and community service.

(This may be integrated with the teaching of theory to make the topics there more meaningful to the student teachers.)

7.22. The programme of Practice of Education may begin in the second term of the first year and may be spread over till the end of the second term of the second year. It may be possible to cover this programme in about 60 working days, *i.e.*, about 10 full weeks excluding Sundays. This may be utilised in the following ways:

- (a) 18 days of demonstration, observation, isolated subject teaching.
- (b) 42 days of two blocks—one in each year for continuous practice and other activities enumerated above. (Three weeks in the 1st year and four weeks in the 2nd year).
- (c) Practice teaching will be so organised that student teachers have experience of each of the following groups of classes:—
(a) 1 to 3, (b) 4 & 5, (c) 6 to 8.
- (d) Practice teaching should not be limited to the attached school only, but it should be done in all kinds of schools in the neighbourhood. It may be advisable even to camp out for the purpose. This will facilitate community survey and community service activities as well.
- (e) The need for supervision cannot be over-emphasized. But all the lessons need not be supervised, and by the training school personnel only. About 60% supervised lessons might be enough in most cases. In the second year block practice student teachers

may progressively be given more freedom and responsibility in planning and execution. They may be encouraged to deviate from standard procedures to experiment.

At present abstract learnings in child psychology and methods of teaching are seldom tried out for the internalisation of the learnings. This programme should afford the trainees sufficient liberty to deal with different problems in the light of the learning in educational theory, to hypothesize, to experiment and to generalise for themselves.

D. CRAFTS

7.23. Objectives

- (a) To help the student-teacher to understand and appreciate the educational, cultural and socio-economic value of crafts in present day India.
- (b) To enable him to achieve such a level of efficiency in the theory and practice of the craft that
 - (i) he can bring out the educational values of the craft while teaching it;
 - (ii) he can plan part of instructional material around this activity with the help of children.
 - (iii) he can bring about necessary skill in and attitudes about the craft among children.
- (c) To enable student-teacher to assemble, adjust and carry out simple repairs to the implements.
- (d) To help him evaluate the outcomes of craft teaching in terms of skill and educational values.

7.24. Minimum number of crafts to be offered by each student-teacher

While it may be useful for a training school to make provision for teaching of as many crafts as possible, each student-teacher may be required to offer two crafts only. One of these shall be at what is generally known as major level and another at subsidiary level. The student-teacher should acquire sufficient skill in the major craft while he should familiarise himself with all the processes of the minor or subsidiary craft. Any craft can be offered both at major or subsidiary level by different students. The subsidiary craft should get about half the time that the major craft is given.

7.25. The major craft may be selected by the student-teachers keeping the following principles in view:

- (i) The craft is practised in the locality in which the student-teacher proposes to work.
- (ii) The craft should be rich in educational potentiality and suited to the age-group of students for which the teacher is preparing himself.
- (iii) The craft should be such for which there is no difficulty in procuring raw materials and in disposing off the products in the immediate neighbourhood.
- (iv) The craft should be such that helps development of the student-teacher's personality and suits his aptitude.

7.26. Suggested crafts

1. Clay modelling and pottery
2. Paper and cardboard work
3. Kitchen gardening and decorative gardening
4. Spinning and weaving
5. Tailoring and needlework
6. Home craft
7. Wood-work
8. Metal work and light engineering
9. Basketry
10. Fibre work
11. Agriculture
12. Sericulture
13. Poultry and bee keeping
14. Bakery-work
15. Leather work

7.27. *Note:*—Targets may be laid not so much in terms of production but in terms of skills and teaching skills. Student-teachers should be permitted to take away results of their work by paying cost of raw material.

All the staff members should participate in some craft activity or the other so that the institution has the right atmosphere and it is integrated with the total training programme through reference to it during theory classes.

7.28. Equipment for some of these crafts is indicated in Appendix IV.

7.29. Courses in a few of the crafts both at subsidiary and major levels are indicated in Appendix III.

E. ART AND MUSIC: RECREATIONAL AND CULTURAL ACTIVITIES

7.30. Objectives

1. To develop and strengthen aesthetic sense of the student-teachers.
2. To enable the student-teachers to guide the aesthetic development of the pupils under their charge.
3. To provide opportunities to the student-teachers for creative self expression for fruitful utilisation of leisure.
4. To enable student-teachers to teach the programmes in schools where specially trained art teachers are not available
5. To offer student-teachers pursuits of healthy recreation.
6. To develop in student-teachers the ability to participate in and organise folk music, community singing, drama, recitation, observance of festivals and national days.
7. To inculcate in student-teachers the ability to appreciate beauty in form, colour and sound—creative arts.

The programme may consist of the following:

7.31. (I) Art and Art Appreciation—Theory

- (i) The meaning of art: The different means of expression, *e.g.*, (a) painting, (b) sculpture, (c) music, (d) dance-drama, (e) literature, (f) architecture, (g) photography. (These arts are to be discussed in brief so that pupil teachers may have the basic idea of their characteristics and differences among them. But painting is to be discussed in more detail as pupil teachers will be dealing more with this in their actual teaching profession)
- (ii) Composition—a general term applied to all arts. Composition in painting and the factors involved in it *i.e.*, line, form, space, colour, tone (light and shade), tone (intensity of colour), texture and perspective.
- (iii) (a) Design—broader meaning of design as planning, design as given an original shape.
 - (i) Design in fine art.
 - (ii) Design in craft
 - (iii) Difference between art and craft.
 - (iv) Design applied to pottery and textile.

- (b) Types of design.
- (i) Ornamental design
 - (ii) All-over design
 - (iii) Decorative design
 - (iv) Commercial design.
 - (v) Motifs in design
 - (vi) Motifs taken from nature
 - (vii) Repetition of the motifs.

7.32. (2) Art—practical

1. (a) Drawing and painting (creative). Compositions in water colours, in paper-tearing and paper-cutting. (Students should prepare compositions on different subjects drawn from life. They should also make a few compositions in paper-tearing, or paper-cutting without any subject (abstract) in order to improve their sense of balance and composition and arrangement of colours.
- (b) Free-hand sketching in pencil, ink and colour of different plants, leaves and flowers, landscapes and different objects.
- (c) Design: decorative and all-over designs. Pattern painting. Alpana, greeting cards.
- (d) Lettering and decorative writing.
2. Preparation of teaching aids : chart, flash card, flannelgraph, strips.
3. Preparation of programme for each grade.

7.33. (3) Art in the School Curriculum

Teaching of art:

1. Child art. Creative urge. Spontaneous self-expression.
2. Stages of development in child art: (a) Scribbling (b) Pre-schematic (c) Schematic, (d) Decisive stage.
3. Methods of teaching art to children: (a) The traditional approach—'look and copy', (b) The new approach—free creations of the child—freedom in expression. (c) The work method—artistic creations during participation in work-activities.
4. Place of art in Basic school curriculum.
5. Evaluation in art.

7.34. Music

Theory : Place of music and drama in the elementary curriculum.

Value of rhythm for personality development.

Place of creative drama in the education of children.

Knowledge about Indian dances and musical instruments of different parts.

Acquaintance with simple ragas. Life history of some celebrated musicians, dancers and dramatists and actors.

Practical: Selection of suitable songs for different occasions for individual and community singing, suited to children and the student-teachers themselves.

Collection of devotional, marching, seasonal and work songs.

Action singing.

Collection and singing of national and patriotic songs.

Organisation of co-curricular activities—clubs, study circles, home-room, literary and debating societies, wall magazine, excursions, non-denominational prayer meetings. Seeking community cooperation for such activities.

Note: The programme in this area is not exhaustive as it is likely to vary according to the abilities with which student-teacher comes to the teacher education institutions. The committee feels that there are wide differences in this regard from one part of the country to the other.

F. COMMUNITY LIVING AND COMMUNITY SERVICE INCLUDING PHYSICAL EDUCATION AND HEALTH

7.35. Objectives

- (1) To give the student-teacher experience of democratic, cooperative community living and to foster in him the ability to organise a school as such.
- (2) To enable the student-teacher to bring school and community closer for mutual service and benefit.
- (3) To develop in him a sense of responsibility, leadership and respect for dignity of man.
- (4) To develop in him an understanding of the importance of physical and mental health as an integral part of one's professional equipment and the development of attitudes and habits which will promote and maintain a clean and healthy life.
- (5) To foster knowledge of the facts and principles upon which the promotion of good health depends and of the methods of maintaining cleanliness and of preventing and curing diseases.
- (6) To develop in him self reliance, initiative and determination in the face of difficulties.

- (7) To acquaint him with the part played by National Extension Service and Community Development Blocks in improvement of the community around the school and to determine the part that the school can and should play in the same.

Activities

Self-government (This should be the keynote of all community activities).

- (i) The training institution should be organised as a free and self-governing unit of cooperative productive work. It should assume responsibilities for carrying out all the necessary activities of the community in accordance with the principles of Basic education. Life in the institute is to be regulated by the representatives elected by the members of the community on the basis of a constitution approved by the head of the institution. It will make provision for a number of such representatives who may be called prefects or monitors or secretaries to undertake the various activities in the college such as food, craft, organisation of social and cultural activities, health and saffai, social service etc. The constitution shall also fix up the duties and responsibilities of these persons and the term of office and other related matters. The Council will be responsible for the successful organisation of the kitchen and submit the accounts to the general assembly every month, for its approval.
- (ii) Routine activities:—(a) prayer, (b) saffai, (c) kitchen and other community duties, (d) newspaper reading, (e) discussions in respect of concepts and methods of Sarvodaya Samaj.
- (iii) Organising health programmes in school and community.
- (iv) Shramadan and Service Camps
- (a) Manual work for betterment of villages, involving the village folk in the same.
- (b) Socio-economic survey to know the needs of villages and appreciate the relationship between these needs and contents of the school syllabus.
- (c) Rural hygiene and sanitation programmes with the active participation of the community.
- (d) Visits to N.E.S. centres, work projects, Panchayat offices etc. and discussions with the related offices and experts and securing their active cooperation and guidance in the camp programme.

- (e) Organising sports meets and recreational programmes for the community.
- (v) Participation in sports, games, P.T., scouting/girl-guiding.
- (vi) Organisation of and participation in festivals, national days etc.

G. SPECIALIZATION

7.36. Objective

- (1) To prepare specialist teachers to handle the subjects more efficiently.
- (2) To give the above average student teacher a chance to utilise his abilities and follow his aptitudes farther than the average student teachers.

7.37. The Courses are indicated in Appendix III.

7.38. Students may offer any one of the following:

- (1) One Craft
- (2) Physical Education
- (3) English
- (4) Hindi
- (5) Art
- (6) Remedial Education
- (7) Music

Programme for Graduates

THE PROGRAMME will run for one year only and will be divided into the following parts :

- A. Theory of Education
- B. Practice of Education
- C. Crafts
- D. Art and Music: Recreational Activities
- E. Community Life and Community Service including Physical Education and Health
- F. Specialisation—Additional optional (for those that want to offer and are considered suitable.)

8.02. Distribution of Marks

A. Theory of Education	500	}	1000
B. Practice of Education	200		
C. Crafts	100		
D. Art and Music	100		
E. Community Life & Community Service	100		
F. Additional optional	100		

8.03. Need for such a Programme

At present the general picture in majority of the States is that elementary schools are manned mostly by undergraduate teachers many of whom have not completed even their high school education. An encouraging fact however is that awareness is steadily increasing about the need to upgrade the organisation and tone of elementary schools in order to effect qualitative improvement in the teaching-learning situation. A preliminary step toward that end is, inter alia, to recruit in increasing numbers graduate teachers to fill up not only the posts of headmasters but some of the posts of assistant teachers. These teachers, by virtue of their enriched academic background spread over a longer period of time, are likely to render better service toward the development of children in elementary schools than what may be expected from their undergraduate and non-matriculated counterparts.

That the professional education of graduate teachers working in elementary schools should be differently oriented from that of the secondary school teachers is a proposition over which there is hardly any controversy. It is open to question whether teachers attending professional course in secondary teachers' training colleges can develop that outlook and acquire those skills which are particularly necessary in dealing with children of lower age groups. The curriculum of an elementary school has an activity bias including crafts. The psychological needs of children in an elementary school are also different from those of their counterparts in secondary schools. This need cannot be met by the B.T. or B.Ed. course of Indian universities even if a special paper is included in it on elementary education. It will thus be necessary to institute full-fledged separate course for the graduate teachers suited to the special needs of child education. This course should be on par with the present B.Ed. programme.

8.04. The Objectives of the Programme

General

1. To offer such a programme of work to the student teacher as will enable him to understand the physical, emotional, social and intellectual needs of children and to acquire a proper interest and insight into the problems of child education.
2. To make the student teacher conversant with the psychological and sociological bases of children's education as well as the theories and methods of learning.
3. To assist the student teacher to acquire a practical knowledge of class management and general administration of an elementary school.
4. To provide opportunities to the student-teacher for development of an integrated personality and social consciousness through practical experiences in community living inside the campus and community contact outside.
5. To enable the student teacher to see beyond the limited area of his professional work and participate in the social enterprise around him with such sensitivity and responsiveness as befit an enlightened and cultured citizen conscious of his social obligations.

8.05. A & B Theory and Practice of Education

Objectives

1. To develop among student teachers understanding of and insight into the developmental needs of children and adolescents.

2. To acquaint them with meaning and function of education particularly in India. Its role in social and cultural change.
3. To make them understand the learning process and the role of the teacher, of the books, and of the activities in the same.
4. To help them understand the importance of work as well as social and natural environment in the educative process.
5. To develop in them the ability to evolve and adapt methods and techniques suited to the different school situations through scientific experimentation and innovations.
6. To develop their ability to build up curricular content around different units of activities and experiences, ability to organise units of lessons in relation to crafts and creative activities, social and physical environment and physical and social living.
7. To develop their ability to individualise instruction.
8. To develop in them the ability to organise schools as self-governing, creative, active, co-operative and democratic community.
9. To develop in them the ability to conduct empirical child study in order to identify child's needs, urges and attitudes.
10. To develop their ability to improvise and prepare teaching aids.
11. To develop among student teachers ability to evaluate growth of children and the impact of school on the community from time to time—ability to locate strengths and weaknesses of the school programmes—ability to interpret test results and to adopt remedial measures—ability to maintain different types of the school records—cumulative records, crafts records, etc.
12. To develop an understanding of current problems of elementary education in India in them.
13. To develop in them the ability to organise the school programme, to supervise the work of the colleagues and to adopt ways and means of constant school improvement with community co-operation.
14. To develop a proper attitude towards the teaching profession.

8.06. Detailed Courses

Theory of Education. It will consist of five papers :

I. Principles of Education and Current Problems of Education.

II. Educational Psychology and General Methods of Education.

III. School Organisation and Administration.

IV & V. Special Methods of Teaching (Any two School Subjects) Mother Tongue/Regional Language. English, Mathematics, Science, History, Geography, Social Studies. (*Note*: other School Subjects

may be added that may be taught in the elementary schools if any).

8.07. I. Principles of Education and Current Problems of Education

1. The Meaning of Education -- Education as Adjustment and Growth—The Nature of Education—A bi-polar activity, Education as a process.
2. General Aims of Education—the individual and social aims—synthesis of the two aims in the democratic ideal. Specific aims of education—liberal education—vocational education—moral education and character, religious education—harmonious development of the personality.
3. Agencies of Education—family, school, community, state and others. Education as a socialising factor—Sociological function of the school—Preservation and promotion of culture—The role of the school is to create new cultural patterns—The school as an agency of social control. Education for a better social order.
4. Basic Education—Gandhiji's concept of education through life—The main media of Basic Education—Crafts, Physical Environment and Social Environment—The Principle of Correlated Teaching. Basic Education and its relation to community needs. Basic Education, its Social and Philosophical Foundations.
5. Education for Democracy—Democracy in India—Democratic organisation of education—Democratic nature of school community—Socialisation of the pupil.
6. Principles of Curriculum Construction—Individual and Social needs and their bearing on the aims, content and organisation of the curriculum—Different kinds of curriculum—traditional, undifferentiated and activity curriculum. Contemporary social aspirations and their bearing on curriculum. Principles of Basic School Curriculum.
7. Discipline—the meaning of discipline—the ways of building discipline. External and internal discipline—Self-direction, discipline and social control—The significance of discipline in individual and collective behaviour in a free and democratic society. The influence of the teacher.
8. Problems of universal, free and compulsory education specially with regard to schools, staff, wastage and stagnation, education of girls and education for the backward communities and tribes. Problems of reorganised secondary education. The language problem in our education.
9. Emotional Integration of the country and the school. Education for international understanding.

10. Modern methods of teaching in Elementary Schools.

8.08. II. Educational Psychology and General Methods of Instruction

1. The Child—Development from infancy to adolescence. Stages of development—Infancy and later childhood—Adolescence and its characteristics—Basic needs of children. Education of children and adolescents.
2. Physical and motor development of the child—Growth and physical changes—Physical health and personality—The physique of the child and his education.
3. Emotional development of the child—Anger, fear, affection, pleasure, pugnacity etc.—Emotional problems in childhood and education.
4. Intellectual development in children—Development of memory and language—Development of concepts and reasoning and creative thinking.
5. Heredity and Environment—Mental environment and the importance of social heredity. Education and the relative importance of nature and nurture.
6. Definition of intelligence—IQ—Environmental factors and the constancy of the IQ—General acquaintance with one or two common intelligence tests—Limitations of Mental Measurement.
7. Individualising Instructions: Education of the gifted and the backward.
8. Development of Personality: Interaction of individual needs and environmental factors. Maladjustment and behavioural problems. Development of Interests and Attitudes. Creativity and Development of personality. Play and its importance.
9. Preparation, administration and interpretation of diagnostic and achievement tests—Remedial work.
10. How learning takes place—Factors that influence learning—Motivation in learning—Conditions for Transfer of learning—General maxims of classroom teaching, from known to unknown, from simple to complex, from concrete to abstract etc.—How to put questions to the class—Level of aspiration and involvement of the students in classwork. Learning of manual and other skills.
11. Psychological bases of Basic Education—The role of crafts and activities in child education—Psychological approach in the method of teaching—Learning by doing, experiencing and living—Child Education and the activity curriculum. Project Method, Kindergarten System and the Montessori Method.

12. Aids to teaching—Visual and aural—illustrative materials, charts, tables and other aids. How to use aids in the classroom to reinforce learning.
13. Elementary Statistics—Tabulation of marks—Frequency Polygon and Histogram—Measures of Central Tendency—When to employ the Mean, Median and Mode. The Standard Deviation.

8.09. III. School Administration and Organisation

1. Physical set-up of the school—School building and location—School building and educational needs of children—Furniture and equipment—Requirements of craftsheds—Maintenance of the school plant. Co-operation of the community and students in it.
2. The school office—Records of employees, pupils, equipment, raw materials, accounts, craft goods etc. How to maintain records in a basic school.
3. The Headmaster and his administrative responsibilities—External and internal agencies controlling the administration of a school—The duties of the headmaster—Distribution of work among staff—Relation with the staff—Qualities of leadership of the Headmaster. Supervision of the work of the colleagues.
4. Organisation of internal functions in the school—Curricular activities and co-curricular activities—Planning the year's work—Budgeting—Classification of pupils—Problems involved in classification.
5. The importance of time table—Principles of time table construction—Importance of home work, its uses and abuses.
6. The place of examination in our education—Defects in the present examination system—The need for evaluation—Measures for the reform of the present examination system—New type tests and Cumulative Record Cards.
7. Modern concept of discipline—Democracy and discipline—Pupils' cabinet in theory and practice—Scope of self-government in schools—Co-operation between the parent and teacher.
8. Supervision, the meaning of the term—Principles and programme of supervision—Organisation of internal supervision in a school—Instructional supervision—Supervision of Elementary Schools—The duties of the Supervisor. In-service Education of Teachers.
9. Concept of Educational Administration—Cardinal Principles of Educational Administration—Indian Democracy and the tasks before educational administration. Administrative Structure of Indian education, the Centre, the States and the Local Bodies. Private and statutory agencies.

10. School Improvement: Yearly goals. Experimentation to achieve the same.
11. School Community relationship. Eliciting community cooperation in school improvement programme. Methods of working with people and groups. P.T.As. surveying a community; Its purposes and methods.

8.10. Papers IV & V

(A) Teaching of Mother-Tongue

1. Objectives of teaching mother-tongue.
2. (a) Early training in speech.
(b) Common defects—physical and emotional and their rectification.
3. Oral self-expression, narration of stories, events, etc. Dramatisation of stories, events, etc.
4. (a) Teaching of reading to beginners.
(i) Reading readiness programmes
(ii) Methods of teaching reading, e.g., phonic method, look-and-say method, story method, composite method, sentence method etc.
(b) Loud reading and silent reading.
5. (a) Teaching of writing to beginners.
(i) Mechanics of writing.
(ii) Writing, transcription and calligraphy.
(b) Dictation, letter writing, short essays.
(c) Correction of errors of spelling and syntax.
6. (a) Teaching of prose and poetry.
(b) Text books and supplementary reading books.
(c) Reading habits and reading interests.
7. The place of mother-tongue in child's life.
8. Growth of vocabulary and development of language among children.
9. The place of mother-tongue in Basic School curriculum; correlated teaching programme and work-method.
10. Mother-tongue curriculum for Basic School (supplement it with a study of the present school syllabus).

Note: To participate effectively in the work activities being conducted in a school, a child has to communicate orally or by writing. There will always be numerous occasions when a child has to read or write announcements notices, reports, diary etc. He may contribute to the school magazine, fill up records forms, read or write letters, participate in the programme of the Bal Sabha etc. All these

activities are specifically related to learning and mastery of the mother tongue. Besides, the aesthetic and emotional expression of of experiences may be included in this programme.

11. Evaluation in mother-tongue. Backwardness and remedial work.

(B) Teaching of Mathematics

1. Number, size, and form in craft and life.
2. Growth of number concepts and recognition of size and form among children.
3. Objectives of teaching mathematics.
4. Methods of teaching numeration and notation, and four fundamental rules.
5. (a) Analytic and synthetic, inductive and deductive approaches in teaching of mathematics.
(b) The Harbartian, project solving and unit methods applied to teaching of mathematics.
(c) Work method applied to teaching of mathematics.

Note:—The work method involves the following:

- (i) Perception of the problem—what is to be done, (ii) developing plan of work, (iii) carrying out different activities of the work, (iv) review and modification of the plan of work during execution, (v) conclusion of work plan, assimilation and organisation of understanding, skills, attitudes, etc. acquired during the activity (vi) use of these in future work plans and activities.
6. The place of mathematics in Basic school curriculum.
7. Mathematics curriculum for Basic schools (supplement it with a study of the present school syllabus).
8. Evaluation in mathematics. Backwardness and remedial work.

(C) Teaching of General Science

1. (a) Science and its impact on human society, thought and living.
(b) The scientific method.
(c) The scientific attitude.
2. (a) The concept of general science.
(b) The nature and scope of general science.
3. Objectives of teaching general science.
4. Method of teaching general science.
5. Work method and teaching of general science.

Note:- --The work method involves the following:

(i) Perception of the problem, (ii) planning of the work programme, (iii) carrying out of the plan, (iv) review and modification during execution, (v) conclusion of the work plan. These processes match well with (a) observation, (b) hypothesis, (c) experimentation and (d) induction aspects of the scientific method. Identification and understanding of inorganic or organic (physical, chemical, or biological) relationships occurring in the work-activity become possible by using scientific concepts and techniques developed by man down the ages. These scientific concepts and techniques can be learnt while participating in the work-activity programme planned in the school.

6. The place of general science in Basic school curriculum.
7. General Science curriculum for Basic school (supplement it with a study of the present school syllabus).
8. Science club, science museum and school park.
9. Evaluation in general science. Backwardness and remedial work.

(D) Teaching of Social Studies

1. The concept and meanings of social studies.
2. The nature and scope of social studies.
3. Objectives of teaching social studies.
4. Devices and aids in teaching social studies.
5. Methods of teaching social studies.
 - (a) The problem solving and project method.
 - (b) The unit method.
 - (c) The activity method and concept of correlation.
6. The Development of social behaviour among children.
7. Social studies in the Basic school curriculum (supplement it with a study of the present school syllabus).
8. Training for citizenship: Celebration of festivals, anniversaries and national events.
9. Evaluation of Social Studies. Backwardness and remedial work.

(E) Teaching of English

1. Place of English in Indian education today.
2. Objectives of teaching English in the elementary school.
3. Different methods of teaching English to primary and middle school children. Correlated approach.

4. Teaching reading and writing. Importance and development of correct speech and writing.
5. Oral and written composition—Essay writing. Use of illustrative material in composition.
6. Aids to teaching of English.
7. Evaluation in English—Backwardness and remedial work.

8.11. Practice of Education

The first thing to do is to allow student teachers to observe teaching in practising schools and the demonstration school, if any. While conducting the theory courses it will be a good exercise to observe actual teaching work and then to work out ways in which a particular idea (discussed in theory courses) can help in improving instruction or school programme or revising school curriculum, as the case may be. The next step could be to provide student teachers with the opportunities to familiarise themselves with children, classroom and school environment so that they have a 'feel' of the situation. Perhaps a training in teaching skills like using of devices, aids or conducting of a class to achieve a specific objective of curriculum, can also be taken up—through what may be termed as 'discrete lessons' programme in which each pupil teacher is expected to teach a few lessons to the lower grades and few to the higher grades of elementary schools with specific objectives in mind. Here he may gain experience with specific devices and aids planned for use in the class. Then the third step would be to organise group discussions and conferences between student teachers. Lecturers and practising school teachers to plan a work-activity curriculum before the first term ends. Classes or particular areas of the school curriculum programme can also be assigned to the student teachers so that they may plan curricular programme in different subjects for various classes in accordance with the objectives.

Perhaps the most important and crucial aspects of these programmes are the relationships between lecturers, school teachers and student teachers and the attitude they have towards the whole programme. Cooperation, sympathy and understanding between lecturers and practising school teachers can go a long way to make the programme successful and to let the student teachers develop proper teaching behaviour. Perhaps it has to be kept in mind that development of a proper teaching behaviour comes about through a gradual and slow process of action and interaction within the situations and problems of teaching. Only when student teachers develop a work-activity curriculum in cooperation with and under the guidance of lecturers and school teachers, are then conduct each item of the

curriculum with clearly conceived purposes under the sympathetic supervision of lecturers and school teachers, they can have opportunities of developing new ways, habits, understanding and attitudes for teaching. Obviously, dissipation of energy in solving minor personal equations, or emphasis or focussing of attention on minor details ignoring the larger perspective and adventure of conducting an educational process will kill the spirit of such a programme, and direct the effort into such channels as would lead to anything but the development of a proper teaching behaviour.

8.12. Thus practice of education should include:

1. Observation of teaching.
2. Discussion of demonstrated teaching.
3. (a) Preparation of teaching, including searching and fashioning material—aids, planning lessons and units, (improvisation of science apparatus).
- (b) Planning curricular programme or learning experiences to suit laid down objectives.
4. Discrete lessons *i.e.*, one subject to one class.
5. Correlated lessons.
6. Multiple class teaching.
7. Complete control of a class for some length of time, which would include planning, maintenance of records and registers, evaluation, maintaining school community relations, and organisation of varying types of co-curricular work.
8. Child study.
9. Organising meeting to plan school activities which all the teachers of a school have to execute as a group *e.g.*, Parents' Day, school as a community, etc.
10. Preparation of children's literature.
11. Selection and collation of folk songs, folk-lore, customs, group songs etc., suited to children of different ages.
12. Selection of books and dramas suited to children of different ages and different subject fields.
13. Community survey for planning teaching units and for community service.

(This may be integrated with the teaching of theory to make the topics there more meaningful to the student teachers.)

8.13. The programme of Practice of Education may begin in the first term and may be spread over till the end of the second term or beginning of the third term. It may be possible to cover this programme in about

48 working days, *i.e.*, about 8 full weeks excluding Sundays. This may be utilised in the following ways:

- (a) 12 days of demonstration, observation and isolated subject teaching.
- (b) 36 days divided in two blocks of continuous practice and other activities enumerated above.
- (c) Practice teaching will be so organised that student teachers have experience of each of the following groups of classes:
 - (a) 1 to 3 (b) 4 & 5 (c) 6 to 8.
- (d) Practice teaching should not be limited to the attached school only, but it should be done in all kinds of schools in the neighbourhood. It may be advisable even to camp out for the purpose. This will facilitate community surveys and community service activities as well.
- (e) The need for supervision cannot be overemphasized. But all the lessons need not be supervised, and by the training school personnel only. About 60% supervised lessons might be enough in most cases. During block practice student teachers may progressively be given more freedom and responsibility in planning and execution. They may be encouraged to deviate from standard procedures to experiment.

At present abstract learnings in child psychology and methods of teaching are seldom tried out for the internalisation of the learnings. This programme should afford the trainee sufficient liberty to deal with different problems in the light of their learning in educational theory, to hypothesize, to experiment and to generalise for themselves.

8.14. Crafts.

Objectives :

- (a) To help the trainee to understand and appreciate the educational, cultural and socio-economic value of crafts in present day India.
- (b) To enable the trainee to achieve such a level of efficiency in the theory and practice of the craft that:
 - (i) he can bring out the educational values of the craft while teaching it;
 - (ii) he can plan part of instructional material around this activity with the help of children.
 - (iii) he can bring about necessary skill in and attitudes about the craft among children.
- (c) To enable student-teachers to assemble, adjust and carry out simple repairs to the implements.
- (d) To help him evaluate the outcomes of crafts teaching in terms of skill and educational values.

8.15. Minimum Number of Crafts

While it may be useful for a training institution to make provision for teaching of as many crafts as possible, each student-teacher may be required to offer two crafts only. One of these shall be at what is generally known as *major* level, and another at subsidiary level. The student-teacher should acquire sufficient skill in the major craft while he could familiarize himself with all the processes of the major or subsidiary craft. Any craft can be offered both at major or subsidiary level by different students. The subsidiary craft should get about half the time that the major craft is given. If the trainees have no previous craft education, they may even offer both crafts at subsidiary level.

8.16. The major craft may be selected by the student teacher keeping the following principles in view:

- (i) The craft is practised in the locality in which the student-teacher proposes to work.
- (ii) The craft should be rich in educational potentiality and suited to the age-group of students for which the teacher is preparing himself.
- (iii) The craft should be such for which there is no difficulty in procuring raw materials and disposing off the products in the immediate neighbourhood.
- (iv) The crafts should be such that helps development of the student-teacher's personality and suits his aptitude.

8.17. A list of suggested crafts:

1. Clay modelling and pottery.
2. Paper and cardboard work.
3. Kitchen gardening and decorative gardening.
4. Spinning and weaving.
5. Tailoring and needle work.
6. Home craft.
7. Woodwork.
8. Metal work and light engineering.
9. Basketry.
10. Fibre work.
11. Agriculture.
12. Sericulture.
13. Poultry and bee-keeping.
14. Bakery.

8.18. Detailed Syllabus in a few crafts is given in Appendix III.

Note: Targets may be laid not so much in terms of production but in terms of skills and teaching skills. Student-teachers should be permitted to take away results of their work by paying cost of raw material.

8.19. All the staff members should participate in some craft activity or the other so that the institution has the right atmosphere and it is integrated with the total training programme through reference to it during theory classes.

8.20. Equipment for a few crafts is indicated in Appendix IV.

8.21. Art & Music: Recreational & Cultural Activities

Objectives

1. To develop and strengthen aesthetic sense of the student teachers.
2. To enable the student-teachers to guide the aesthetic development of the pupils under their charge.
3. To provide them opportunities for creative self-expression and for fruitful utilisation of leisure.
4. To enable student-teachers to teach the programmes in schools where specially trained Art teachers are not available.
5. To offer student-teachers pursuits of healthy recreation.
6. To develop in student-teachers the ability to participate in and to organise folk music, community singing, drama, recitation, observance of festivals and national days.
7. To inculcate in student-teachers the ability to appreciate beauty in form, colour and sound—creative Arts.

The programme may consist of the following:

8.22. Art Theory

1. Art and Art Appreciation

- (i) The meaning of Art: The different means of expression, *e.g.*, (a) Painting, (b) Sculpture, (c) Music, (d) Dance-drama, (e) Literature, (f) Architecture, (g) Photography. (These arts are to be discussed in brief so that student teachers may have the basic idea of their characteristics and differences among them).
- (ii) Composition—a general term applied to all arts. Composition in painting and the factors involved in it *i.e.*, line, form, space, colour, tone (light and shade), tone (intensity of colour), texture and perspective.
- (iii) (a) Design: Broader meaning of design as planning, design as giving an original shape.

- (i) Design in fine art.
- (ii) Design in craft.
- (iii) Difference between art and craft.
- (iv) Design applied to pottery and textile.
- (b) Types of designs.
 - (i) Ornamental design
 - (ii) All-over design
 - (iii) Decorative design
 - (iv) Geometrical design.
- 2. (i) Child art. Creative urge. Spontaneous self-expression.
- (ii) Stages of development in child art: (a) Scribbling, (b) Pre-schematic, (c) Schematic, (d) Decisive stage.
- (iii) Methods of teaching art to children: (a) The traditional approach—'look and copy', (b) The new approach—Free creations of the child—freedom in expression, (c) The work method—artistic creations during participation in work—activities.
- 3. Place of art in Basic school curriculum.
- 4. Evaluation in Art.

8.23. Art Practical

1. (a) Drawing and painting (creative). Compositions in water colour, in paper-tearing and paper-cutting. (Students should prepare compositions on different subjects drawn from life. They should also make a few compositions in paper-tearing, or paper-cutting without any subject (abstract) in order to improve their sense of balance and composition and arrangement of colours).
- (b) Free-hand sketching in pencil, ink and colour of different plants, leaves and flowers, landscapes and different objects.
- (c) Design: Decorative and all-over designs. Pattern painting. Alpana. Greeting cards.
- (d) Lettering and decorative writing.
2. Preparation of teaching aids: chart, flash card, flannelgraph, strips.

8.24. Music Theory

Place of music and drama in the Elementary curriculum. Value of rhythm for personality development.

Place of creative drama in the education of children.

Selection of suitable songs for different occasions for individual and community singing, suited to children and the student teachers themselves.

Knowledge about Indian dances and musical instruments of different parts.

Acquaintance with simple Ragas. Life history of some celebrated musicians, dancers and dramatists and actors.

8.25. Music Practical

Collection of devotional, marching, seasonal and work songs.

Action singing.

Collection and singing of national and patriotic songs.

Organisation of co-curricular activities—clubs, study circles, home-room, literary and debating societies, Wall magazine, Excursion, non-denominational prayer meetings. Seeking community cooperation for such activities.

Note: The programme in this area is not exhaustive as it is likely to vary according to the abilities with which student-teachers come to the teacher education institutions. The committee feels that there are wide differences in this regard from one part of the country to the other.

8.26. Community Living and Community Service including Physical Education and Health

Objectives :

- (1) To give the student-teachers experience of democratic cooperative community living and to foster in them the ability to organise a school as such.
- (2) To enable the student-teachers to bring school and community closer for mutual service and benefit.
- (3) To develop a sense of responsibility, leadership and respect for dignity of man in the student-teachers.
- (4) To develop in them an understanding of the importance of physical and mental health as an integral part of one's professional equipment and the development of attitudes and habits which will promote and maintain a clean and healthy life.
- (5) To foster knowledge of the facts and principles upon which the promotion of good health depends and of the methods of maintaining cleanliness and of preventing and curing disease.
- (6) To develop in them self reliance, initiative and determination in the face of difficulties.
- (7) To acquaint them with the part played by National Extension Service and Community Development Block in improvement of the community around the school and to determine the part that the school can and should play in the same.

3.27. Activities

- (i) Self Government. (This should be the keynote of all community activities).

The training institution should be organised as a free and self-governing unit of cooperative productive work. It should assume responsibilities for carrying out all the necessary activities of the community in accordance with the principles of Basic Education. Life in the institute is to be regulated by the representatives elected by the members of the community on the basis of a constitution approved by the head of the institution. It will make provision for a number of such representatives who may be called prefects or monitors or secretaries to undertake the various activities in the College such as food, craft, organisation of social and cultural activities, health and *safai*, social services etc. The constitution shall also fix up the duties and responsibilities of these persons and the term of office and other related matters. The Council will be responsible for the successful organisation of the activities and submit the accounts to the General Assembly every month, for its approval.

- (ii) Routine activities:—(a) Prayer, (b) *Safai*, (c) kitchen and other community duties, (d) newspaper reading, (e) self-study.
- (iii) Organising health programmes in school and community.
- (iv) Shramadan and Social Service Camps.
- (a) Manual work for betterment of villages in cooperation with the local people.
- (b) Socio-economic survey to know the needs of villages and appreciate the relationship between those needs and contents of the school syllabus.
- (c) Rural hygiene and sanitation programmes with the active participation of the community.
- (d) Visits to N.E.S. Centres, Work projects, Panchayat offices etc. and discussions with the related officers and experts and securing their active co-operation and guidance in the camp programme.
- (e) Organising sports meets and recreational programmes for the community.
- (v) Participation in sports, games, P.T., scouting/girl guiding.
- (vi) Organisation of and participation in festivals, national days etc.

8.28. Specialisation

Objectives :

- (1) To prepare specialist teachers to handle the subjects more efficiently.
- (2) To give the above average student teachers a chance to utilize his abilities and follow his aptitudes farther than the average student-teachers.

Any of the following papers :

8.29. Social Education

1. History in India from 1918 onwards:
2. Objective of Social Education: Self development, vocational skill, health habits, social cohesion, conservation and improvement of national resources. Inculcating cooperation and social ideology.
3. Provision for Social Education in Indian Constitution—The place of Social Education in National development. Five Year Plans and Social Education. The school teacher and his role in Social Education.
4. The Psychology of Adults—their learning and the problem of motivation. Methods of teaching adults. Tests and examination in adult education.
5. The Teacher of Social Education—Sources of recruitment—Securing requisite personnel. Provision of facilities for Social Education. Qualification and training of teachers.
6. Agencies of Social Education—Community Centres, Libraries and Museums. Radio Forums, etc.
7. Teaching aids and materials in adult literacy including audio-visual aids—Primers and Readers for adult learners. Literature for neo-literates.
8. Adult Education in the U.K. and Denmark—Lessons to be drawn for India.
(Student teachers should undertake some practical work connected with the activities discussed in the theory paper).

8.30. Educational Guidance and Counselling

1. The Concept of Guidance—educational, vocational and personal—The need for guidance in elementary and secondary schools. The basic principles of guidance.

2. The basic data necessary for guidance—pupils, courses and vocations. Knowledge of the pupil—methods of recording the results of investigation of the individual—his interests and other personality traits—abilities and aptitudes—his educational attainments. Tests and inventories. Cumulative Record Cards.
3. General Methods of Guidance and Pupil Personnel Work—Methods of guidance in the Elementary School. The guidance programme in the Elementary School—Knowing the child's problems—Understanding child behaviour—Guidance through classroom activities—Communication and counselling with parents.
4. Information about courses and vocations—their psychological and educational requirements.
5. Counselling and its different types.
6. Role of Headmaster, Teacher Counsellor and other teachers in counselling. Organisation of School Guidance Service—hobby clubs, school guidance corners, career talks, orienting parents. (Practical work: Guiding at least two children and submission of a report thereon).

8.31. Measurement and Evaluation in Education

1. Concept of measurement and evaluation in education—assessment of the personality and Cumulative Record Card.
2. Different types of tests—measurement of intelligence, attainments, interests, aptitudes and personality.
3. General principles of test construction, the different stages—Validity, Reliability, Objective and Standardization of a test.
4. Use of test and interpretation of test results—Test data and their statistical treatment—Measures of central tendency, Measures of variability—Normal probability curve and its uses—Comparison between sets of data, graphs, percentiles, standard scores, etc. Conversion of scores and scaling procedures.
5. Methods of calculating co-efficient of correlation—Interpretation of correlation co-efficient.
6. Planning a school testing programme—Functions of a testing programme—(a) Classroom functions of a testing programme, (b) Guidance functions of a testing programme, (c) Administrative functions of a testing programme. Qualities required in a testing programme, (a) Relation to use, (b) Integration and (c) Continuity. (Practical work: Preparation and standardization of at least one instrument and report thereon).

8.32. Elementary Teacher Education

1. The Education of Elementary Teachers in India—a historical survey (1800-1965).
2. The present picture of Elementary Teacher Education in India. Existing systems and curricular patterns—Teachers we need today.
3. Bases of curriculum construction for elementary teacher education—The aims and objectives of the programme. The controversy between 'what to teach' and 'how to teach'.
4. Pre-service education of the teacher, some organisational aspects—selection procedures, size of the institution and optimum enrolment, buildings and equipment, craftsheds, duration of the course, library service, examination and certification.
5. Practice teaching: its objectives. How it should be organised. The role of attached practising schools.
6. In-service Education of Elementary Teachers—Provision of Extension Services in a training college—Correspondence Courses. Evening and vacation courses. Role of State Institutes of Education.
7. A Comprehensive Programme of Teacher Education—The Role of the Comprehensive College of Education—State Council of Education and its contribution to the development of teacher education.

(Practical work: Case Study of an Elementary Training School/College and submission of a report thereon.)

8.33. Elementary School Administration and Supervision

1. Elementary Education and its administration in the country—the role of the Central Government, the State Government and the Local Bodies. Private agencies.
2. Aims and objectives of Elementary Education in modern India—Guiding principles of school administration in a democracy. Elementary Education of weaker sections: Scheduled castes and tribes etc.
3. Criteria for elementary school organisation—Needs of an elementary school in regard to physical set-up and curricular activities—school plant, staff, teacher-pupil ratio, the school instructional programme, organisation of craft-activity programme, health programme, examination, class promotion and wastage.

4. Supervision of elementary schools in India—Development between 1881 and 1947. Major problems of Elementary School Administration in post-independence India.
5. The meaning of supervision, what it should include. Objectives of a modern supervisory programme—Organisation of internal supervision in a school.
6. The Supervisor—His general education and professional training—His status and service conditions. Should administration and supervision be separated? Should supervision be decentralised and left to veteran headmasters of elementary schools?
(Practical work: A small problem in this area may be taken for investigation and reporting).

Evaluation of Elementary Teacher Education Programme

THE EXAMINATIONS and evaluation have been under critical review for sometime. Very often the criticism is that the examination procedure is not reliable and does not serve the purpose for which it is intended. Many educators have pointed out that examinations are not attuned to the objectives and goals that are set for various courses in the institutions. Modern thinking emphasises the need for setting objectives before every teacher and learner. Objectives remain central to both learning experiences and evaluation. Evaluation comes at the planning stage when objectives are formulated. Learning experiences are also provided in terms of objectives. At every point of learning, evaluation is an attempt to discover the extent of effectiveness of the learning situation in bringing about the desired changes in the behaviour of the students.

9.02. The programme of the institution is meaningful to the extent learning experiences are related to the life of the learner. It is agreed that many of the objectives are desirable but they remain in the realm of ideal and therefore cannot be fulfilled. The educator, therefore, is not concerned with the objectives that cannot be achieved with reasonable amount of effort. In formulating syllabus the Committee has kept this in view. The syllabus has been mainly realistic. Need of the learner, the ability of learner and limitations of an average institution have been kept in view while framing the syllabus. The evaluation, therefore, should be related to the objectives that are stated therein.

Existing System of Evaluation

9.03. A study of training courses prevalent in the States of the country, shows that there is no uniformity in the scheme of assessment and procedure of evaluation.

9.04. Most of the courses combine internal assessment with external examination; the general tendency being to assess the practical work internally and require external examination in theory. In some states such as Delhi, Madhya Pradesh, Rajasthan and West Bengal, there is external examination for the theory papers but some percentage of marks is

reserved for internal tests. A peculiar procedure is followed in Madras (Basic Training School Certificate), viz., the question papers are set by the State Board but they are examined by the members of the staff of the respective institutions.

9.05. In courses, running in States like Andhra Pradesh and Madras, no marks are awarded for sessional practical work, but records of the students' work are maintained to judge from time to time the rate of progress of student teachers. The marks are awarded only for theoretical studies.

Assessment of Skill in Teaching

9.06. There are two practices either the skill is wholly assessed internally or internal assessment is supplemented by a final examination.

Assessment of Craft

9.07. In majority of cases it is assessed internally but in some courses external test is required. A few courses also have an external examination in the theory of craft.

Nature of Tests and Examinations

9.08. While in theory training institutions lay a lot of emphasis on new type examination, in actual practice, only the traditional types are prevalent. In a few places cumulative record forms are also maintained.

9.09. After this brief review of the existing practices, we may examine them from the point of view of popularity and utility, and we may suggest side by side the scheme of assessment for training institutes in the light of the data collected by the Syllabus Committee.

Scheme of Assessment in Theory Papers

9.10. The first problem related to assessment in theory papers is of internal and external i.e., whether it should be internal or external or both; if both, what weightage should be given to each. This question of internal and external assessment was considered as early as 1960, at the First National Seminar on the Education of Primary Teachers in India. Considering the advantages of external examination the participants felt: "...in all teaching-learning situations, the teacher to evaluate the learning efforts of his pupils. The tests he made for his pupils were indirectly an evaluation of his own work also. When, however, an outside agency demonstrated a test, its purpose was to see that pupils reached a minimum standard—

sometimes it would also enable the agency to compare different institutions."

9.11. At the same time the group was fully aware of the disadvantages of external examination, which they enumerated as follows:

- “(i) It affects the treatment of the subject to be examined;
- (ii) It devaluates the status of the subjects that are not offered for examination, viz., creative and aesthetic side of education; and
- (iii) The examination which begins as a means eventually becomes an end in itself.

9.12. The group however concluded that in order to win the public confidence the theory papers must be externally examined for the time being though about 25% marks may be reserved for class work.

9.13. The data collected by the present Syllabi Committee is an endorsement of the above view as out of 65 respondents as many as 59 have opined that evaluation should be both internal as well as external. The committee noted that general opinion was to reserve some marks for the class work in theory papers and assign the remaining to external examination. To be more specific, the mean weightage suggested in 68.00% for external examination and 32.00% for internal assessment.

9.14. In the light of the above, the committee feels that theory papers should be both internally and externally examined. However, it is also the feeling of the Committee members that internal assessment should be introduced cautiously to win the confidence of all concerned with teacher-training programmes. To begin with, we may reserve 30% marks for internal assessment and 70% marks may be kept for external examination. After sometime it may be raised to 50% in some areas. While raising the percentage of marks for internal assessment, we should make sure that it is properly used and gaining popularity. This can be done by seeking the opinion of those working in the field of teacher-education.

9.15. Internal assessment should be based on student's performance over the year. It should be made under every day conditions to reflect student's normal work. For this purpose periodical tests, activities, tutorials, seminars, discussions and cumulative records may prove very useful to provide evidence of student's growth. It is also suggested that staff-meetings should be held at regular intervals to discuss the cumulative records so as to bring about more uniformity and objectivity in internal assessment.

9.16. The Committee feels that recommendations regarding external examination made at the First National Seminar still hold good as nothing much, since then, has been achieved. It was recommended then that “In the external examination, the nature of questions need revision. Questions should not be of such nature as would lead to cramming. Instead

of asking questions of fact and information, examiners should also try to measure the ability to understand, the ability to solve problems and the ability to apply principles. Short-answer questions may also be helpful.”

9.17. The Committee is of the opinion that questions of theory papers can become more objective-based if they are moderated by moderators. At the same time Committee likes to suggest that moderators should be appointed from among those working in the actual field of teacher-education.

9.18. Studies have shown that two sets of marks (internal and external) differ with regard to certain statistics like standard deviation etc. So, it is not statistically sound to combine the marks of external and internal assessments. It is, therefore, suggested that they may be maintained separately and their results may be announced as such. Alternatively scaling procedures should be adopted before combining such marks.

Evaluation of Skill in Teaching

9.19. Assessment of practical skill in teaching should be done by internal teachers in the training institution concerned, on the basis of the candidate's practice teaching during the period of training. But for standardising the assessment done by the internal teachers, we feel that a Co-ordinating Board may be appointed for final assessment. The board should meet at least twice a year to ensure uniformity of standard among the different institutions. During the first visit, Board may discuss the evaluative procedures with the staff members of the institution concerned. The Board may look into the candidate's record pertaining to teaching done and lessons observed. The Committee is of the opinion that individual institutions should be left free to adopt their own evaluative procedure based on their experiences. But the Co-ordinating Board should make sure that evaluation has been objectively and scientifically done.

Evaluation of Community Life Activities

9.20. Assessment of community life activities should be made for each trainee internally by observing his behaviour and actions in every walk of life and applying other evaluative techniques for the purpose. For evaluation of community life the following factors may be recommended for consideration, “co-operation among colleagues as well as in society, removing the feeling of class consciousness and untouchability, observation of daily routine, attitudes towards village life, neat and clean surroundings, adjustment and behaviour in the dining hall, combined prayers of all religions and respect for other religions, social service activities during the camp etc., attitude towards adult education, solving school problems, seeking villagers' co-operation, organisation of camps, etc.”

9.21. Records of individual trainees may be maintained for the entire session. Assessment should be made every month and final assessment should be made by taking into consideration all the available records. Moreover, this final assessment should be made by a Board consisting of Head of institution and other staff-members and not by a single individual on the staff. And on that basis trainees may be awarded grades *e.g.*, excellent, good, average etc. Normally a five point scale gives adequate satisfaction. These grades may be separately mentioned on the certificate, they are entitled to get after successful completion of the course.

Evaluation in Craft and Other Practical Work

9.22. This may be done internally. Craft may work be evaluated keeping in view factors such as, quality and quantity the student-teacher produces, maintaining records, correlated lessons given by him and his attitude towards craft. Other kinds of practical work will also similarly be assessed. Practical work related to theory-paper, *e.g.*, practice in using evaluative techniques, will form the part of internal assessment in that paper. Grades for craft and other practical work may be assigned to students and they may be mentioned separately on certificate. This assessment too should be finalised by a board consisting of head of institutions and members of the staff considering the work of the student throughout the session.

9.23. In the end the Committee feels to emphasise that training institutions should use various new and old techniques to assess the students on various objectives. At the same time institutions should be cautious in disseminating the correct idea among the student-teachers regarding evaluative techniques. Very often it has been noted that after training teachers think that new techniques (*e.g.*, objective type tests) only are better techniques. This misunderstanding should be allowed to develop neither in the minds of the staff-members of training institutes nor in the minds of the trainees. It should be emphasized that the techniques are a means to an end. So long as the purpose is served new and old techniques should be considered equally valuable.

In-service Education

PRE-SERVICE EDUCATION seeks to produce a person ready to launch on a teaching career. It deals mainly with fundamentals and basic professional skills. It is, however, only the 'start' of a long journey. The education of teachers does not end with graduation from teacher-training institutions. 'Education' is a continuous process. It is essential, therefore, to find ways and means to provide facilities and an environment in which the teacher will find new significance and new understanding, and wherein he will develop new insight into his work and programme. The creation of such an environment conducive to professional growth is in-service education at its best.

10.02. Any good in-service programme, therefore, should be developmental in nature, based on the assumption that the needs of individuals both as persons and as educators change with years of experience and further education. Any in-service programme, therefore, should be designed to:

1. Reconstruct the educational programme and the curriculum in terms of dynamic social outlook and an awareness of the social, economic and political problems.
2. Undertake careful and systematic study of the pupil's home and community.
3. Provide new learning materials, new procedures for making learning effective and new techniques of evaluation.
4. Encourage experimentation.
5. Help teachers to become careful students of children and not to become experts in subject-matter alone. To this end they must understand the most recent developments in theories of learning and their implications for educational practice.
6. Acquaint teachers with educational research, with writings in current educational periodicals and books, and with important educational experiments all over the country and abroad.
7. Help teachers to formulate new objectives of education in keeping with the needs of the pupils and the needs of a democratic way of life, and encourage teachers to evaluate pupil growth in terms of these objectives.

8. Release teachers from thinking within the limits set by traditional courses of study, systems of marking, systems of promotions, authoritative undemocratic practices of school administration, and unsympathetic attitudes of educational leadership.
9. Encourage teachers to participate in socially significant activities. To this end provision must be made for the teachers' participation in community forums, meetings and conferences on current social problems.
10. Foster growth and improvement of all the social agencies in the community because the success of the school programme is conditioned by the degree of coordination between the school and other educational agencies.

10.03. It is, therefore, clear that inservice education should include provision for general education, study in depth in the field of specialisation as well as professional education. That work in each area should lead to acquisition and control of knowledge. That it should be planned with reference to the individual potential and competency. It is also necessary that provision be made for doing more than helping the educator to keep abreast of developments in his field and in education. In-service education should be equally concerned with continuing growth in intellectual curiosity, in creativity and imagination, in seeking new insights and relationships and in willingness and ability to explore the unknown. Realisation of these horizons as pertinent to work in pre-service as well as in-service education, suggests that in-service activities would be designed to build on previous experiences to widen their scope and to develop competence at a more advanced level.

10.04. In India this realization has come only recently. It was in 1944, that the Central Advisory Board of Education recommended that refresher courses should be provided at frequent intervals in order to keep trained teachers up-to-date. In 1945, the Sargent Report recommended that refresher courses should be provided for all levels. In 1949, the University Education Commission observed that "an urgent reform is the institution of vacation refresher courses for high school and intermediate college teachers. At present neither students nor teachers utilize their vacation. For most of them, vacation is a period of want of occupation. Most of our school teachers do not keep intellectually alive and there is little inducement for them to do so. It is extra-ordinary that our school teachers learn whatever subject they teach before reaching the age of twenty-four or twenty-five and then all their further education is left to "experience" which in most cases, is another name for 'stagnation'. We must realize

that experience needs to be supplemented by experiment before reaching its fullness and that a teacher to keep alive and fresh, should become a learner from time to time. Constant outpouring needs constant intaking, practice must be reinforced by theory, and the old must be constantly tested by the new."

10.05. In 1952, the Secondary Education Commission have observed, "However excellent the programme of teacher training may be, it does not by itself produce an excellent teacher. It can only engender the knowledge, skills and attitudes which will enable the teacher to begin his task with a reasonable degree of confidence and with the minimum amount of experience".

10.06. The first National Seminar to chalk out ways and means of starting in-service education programmes through secondary training colleges was held at Hyderabad in December, 1954. The second such seminar was held in Srinagar in June, 1955, where definite proposals were finalised. As a result the All India Council for Secondary Education was founded by the Ministry of Education. In 1955, September, 23 Extension Services Departments were started in the various training colleges. The number went up by 31 in 1957-58. Two centres were added in 1961-62 and thirteen centres and 23 units in 1962-63. 1964-65 saw the addition of five centres. Thus today there are 97 centres and units functioning in the country. About 8,000 secondary schools have since been involved in the programme of in-service education. The impact of the movement is visible everywhere as far as secondary schools are concerned.

10.07. In-service education for primary school teachers is, however, a very neglected affair and is still in its infancy. At the instance of the Ministry of Education, the National Council of Educational Research & Training took up the work of organising extension services for primary schools in 1961-62. This is the direct responsibility of the National Institute of Basic Education, now an organ of the Council. Centres are being opened in the elementary training colleges in the following phased programme:

1962-63	-----	30 Centres.
1964-65	-----	15 Centres.
1966-67	-----	15 Centres (proposed).
		Total 60

10.08. Another worthwhile step that has been taken recently is the establishment of the State Institutes of Education at the rate of one in every State. These institutes have been charged with the responsibility of improving the quality in elementary education by orienting all the categories of workers involved in the process *i.e.*, the teachers, educators as well as the members of the supervisory services.

10.09. As a result of attempts to expand elementary education the number of schools has risen to more than four lakhs and that of teachers to twelve lakhs. Quantity has to be accompanied by quality. In-service education is essential for the improvement of teacher's own mental equipment so that his performance may also improve in the actual school situation. The tempo of educational expansion and improvement is going to be maintained in the Fourth Plan and as such more and more attention will have to be paid to in-service education programmes.

10.10. This in-service education will be necessary for teachers, trained as well as untrained. Speaking generally the problem of in-service education breaks itself into the following broad channels:

1. Professional growth of already trained personnel through in-service programmes like seminars, workshops, refresher courses and similar short in-service features which may be arranged occasionally by the various agencies.
2. Provision of facilities for improvement or academic or professional qualifications of persons having minimum qualifications to start with.
3. Training programmes for in-service training of untrained teachers.
4. Retraining of teachers in areas like Basic Education.

Short In-service Programme

10.11. This is rather a new innovation in the field of elementary education in India. However it is hoped that more and more facilities will be provided to the classroom teacher to acquaint him with the latest developments both in philosophy and technique. An occasional exchange of experience amongst co-workers in a particular field of activity is always helpful in this direction.

The purpose of such programmes should not be a mere repetition of the training college courses. There is need to break new ground in content, organisation, teaching and evaluation processes. These programmes should better be organised around the persistent problems that face the average classroom teachers in the usual schools situation. Lectures should form only an unimportant part of the in-service technique.

10.12. The following areas are suggested for special emphasis in the Indian scene.

1. In India as a whole as well as in the various regions, large reorganisation schemes are being launched. The teacher has to be prepared to face new problems in syllabus and techniques.

The basic technique may be taken as a point of illustration. There is colossal ignorance about this new system. The terms like 'correlation', 'self-sufficiency' etc. are not usually understood and need clarification.

2. With the tremendous expansion in elementary education the phenomenon of large classes and single teacher schools have come to the foreground. Techniques of multiple class teaching and organisation are a must.
3. Largest developments in child psychology with special reference to handling the child, group work, grading and behaviour problems, need immediate attention.
4. The latest techniques in audio-visual aids with special reference to cheaper and improvised material have also to be given due place in the in-service programme.
5. To these may be added items like evaluation, guidance, school community relationship etc.
6. There is a tendency to neglect the content side of education. It is important that the latest in the subject matter areas is also covered during in-service programmes. Special attention has to be paid to areas like Social Studies, General Science etc., items which are relatively new and the present day teacher may be ignorant of their real scope and significance.

10.13. It is understood that most of the in-service activities will have to be held during holidays and during long vacations with a few week-end courses thrown in every now and then. As this cannot cover all the teachers who need help correspondence education may be the solution.

Staff Meetings and In-service Education

10.14. It is being suggested here that one of the most effective agencies for in-service education is the school faculty itself. In these faculty meetings, there should be sufficient scope for professional growth provided they are properly planned and organised and do not degenerate into routine meetings called to rubber stamp what the headmaster wants to do or to discuss. Further, it cannot be denied that local needs and problems can be best solved by local people. Of course, expert or technical help may be secured from outside or from within the local community. Another advantage of stressing the utility of staff meetings for in-service education is that the needs and ideals of the children and youth and adults of the local community can remain in focus of in-service programmes.

10.15. The main functions of a staff meeting, therefore, should be to provide ample opportunities for consideration of the work of the school, for planning and conducting action research and experiments designed to improve school practices and to a discussion of the various other problems of the school and its personnel. The staff meetings could occasionally

take the shape of study groups and study circles when a specific problem could be thrashed out and individuals encouraged to share their point of view and experience with colleagues. An occasional talk by an outside expert or comments by a colleague who returns after attending a conference or a seminar could be arranged for mutual advantage.

Professional Organisations and In-service Education

10.16. As said earlier one of the main tasks of the teachers' organisations should be to help in the professional growth of their members. In some of the more advantaged countries such associations are very active, and they carry out all types of programmes for the benefit of their members. Many associations also bring out a large number of useful guide-books and journals for their members.

10.17. In pre-independence India, the number of teachers' associations was very small. There were practically no organisations dealing with specific subjects. A change has, however, come in the picture after independence. Different categories of teachers like University Teachers, Secondary Teachers, Primary Teachers and Science Teachers have combined to form separate associations, some of them affiliated to the All India Federation of Educational Associations. Their activities, however, have remained confined largely to matters regarding salaries, service conditions etc. One or two associations like the South India Teachers Association have undertaken some useful projects and also publish a journal as well as occasional brochures and study reports. Most of the associations, however, belong to the teachers of higher category. The elementary school teachers have so far remained neglected. Only recently an All India Primary Teachers Association has been formed and is looking after this category of workers. It has so far not undertaken in-service programmes. It is therefore, high time that primary teachers organised themselves into regional and subject associations and paid attention to professional growth. Journals and brochures in regional languages dealing exclusively with problems pertaining to primary education need to be published. The Primary teacher has to be rejuvenated mentally and intellectually. The state governments will do well to encourage the establishment of such organisations devoted mainly to educational problems.

Improvement of Academic and Professional Qualifications

10.18. The average primary school teacher is only Middle pass or Matriculate with a one year or two year training qualifications. There is naturally a great demand for facilities to improve both academic and

professional qualifications. In many Indian Universities and Education Boards there is a provision for teachers to appear as private candidates. Correspondence courses will facilitate it further. In many universities people can graduate privately through the language examination.

10.19. Most of the Universities do not allow any one to qualify for the degree in education as a private candidate. Universities like Punjab give this facility to in-service teacher who already possesses some lower qualifications in education. However, with the abolition of the B.T. degree, even the Punjab University will stop giving this facility to in-service teachers anxious to improve their qualification. The only remedy lies in starting vacation and correspondence courses. At the moment there are no such arrangements anywhere. Only the Jodhpur University has from this year started a vacation B.Ed. course for in-service teachers. According to this scheme a B.Ed. candidate has to register himself/herself for two academic sessions as a student in the vacation courses. In all he has to come to the college for 178 days, mostly during vacations, for lectures and teaching practice. During the rest of the period he works on his own and submits regular assignments to the college authorities.

10.20. In U.S.A. a large number of teachers attend summer sessions for self-improvement not necessarily leading to a degree. The summer session's major contribution to teacher education in U.S.A. has been two-fold: (1) it has provided college courses for general education purposes and courses in the fields of specialisation for teachers: and (2) offered graduate degree programme for school personnel preparing for positions of educational leadership and met certification requirements.

10.21. A basic factor in the growth of summer session enrolments of teachers in U.S.A., regardless of their fields of study, has been the practice of public school systems of giving salary increases for the completion of formal courses or degrees. The requirements by some States that teachers complete a prescribed number of courses within a given period of years, to maintain the validity of their teaching certificates has increased summer session enrolments as well. 'These practices' remarks a famous American educationist, 'although intended to improve the professional competence of teachers, all too frequently have encouraged reluctant teachers to enrol in graduate courses, for the quick attainment of easy credits and degrees, rather than the improvement of professional competence'.

10.22. Similar tendencies have been noticeable in India also. People may often try to get higher qualifications in order to get increments or promotions and not necessarily to improve their knowledge or professional competence. It is understandable if a B.Sc. (Agriculture) follows the M.Sc. course in the same field, and a person should be encouraged; but it is

beyond comprehension if a B.Sc. teacher later pursues a course for the M.A. degree in Punjabi only because it is easier to get a Master's degree in Punjabi, than to get the M.Sc., and because if he gets a Master's degree, he becomes entitled for a few increments. Care has, therefore, to be taken that the teachers acquire higher qualification in their own field, and only in such cases they should become eligible for advance increments.

Training of Untrained Teachers

10.23. There is again the problem of in-service education of untrained teachers. By the end of the Third Five-Year Plan, there will be a backlog of about four lakh teachers in our primary and middle schools. The existing training institutions cannot cope with the demand even for new teachers. Special measures have therefore to be devised to clear this backlog. The problem, is, however, not uniform in all the States as the following table will indicate.

10.24. The Study Group on the Training of Elementary Teachers in India appointed by the Government of India, in 1962 has recommended the following measures to improve the situation.

1. For teachers above the age of 35 years and having 10 to 15 years of teaching experience, regular courses will not serve any useful purpose. Their training has to be undertaken through short-term in-service courses.
2. For teachers below 35 years having put in 5 to 10 years of service, the training should be of one year.
3. Full term training course would be required for teachers who put in less than five years of service and whose age is below 35 years.

Some States have experimented with the first suggestion. For example, in U.P. Middle pass teachers having five years of experience or more attend a 3½ months training course in special schools. Two such courses are necessary in order to qualify. There is no content. In methods there are condensed courses. Teaching practice has been shortened. In West Bengal also shortened courses are in existence.

10.25. We would like to commend Evening Departments and Vacation and Correspondence Courses in this context. Both these agencies are in existence in most of the advanced countries of the world, specially in U.S.S.R. where evening departments and correspondence courses form an important means of teacher education.

State Institutes of Education can organise this correspondence education with the cooperation of well established elementary training institutions. Such courses can be both pre-service and in-service in nature. The latter would be enrichment programmes for the already trained teachers. The

TABLE
Percentage of Trained Teachers

Sr. No.	State/Union Territory	Percentage of trained teachers 1960-61	Expected percentage of trained teachers 1965-66
Primary Schools			
1.	Andhra Pradesh	82.9	90.0
2.	Assam	39.3	36.2
3.	Bihar	71.2	84.0
4.	Gujarat	35.6	65.8
5.	Jammu and Kashmir	54.1	56.0
6.	Kerala	90.8	100.0
7.	Madhya Pradesh	51.0	78.0
8.	Madras	95.9	98.0
9.	Maharashtra	49.8	100.0
10.	Mysore	43.4	86.0
11.	Orissa	38.5	66.0
12.	Punjab	92.1	94.0
13.	Rajasthan	50.8	77.9
14.	Uttar Pradesh	74.8	65.0
15.	West Bengal	38.1	49.2
	All India	60.6	77.89
Middle Schools			
1.	Andhra Pradesh	77.0	87.0
2.	Assam	25.9	20.0
3.	Bihar	63.6	73.0
4.	Gujarat	54.3	63.33
5.	Jammu and Kashmir	56.7	72.0
6.	Kerala	77.9	100.0
7.	Madhya Pradesh	50.8	53.0
8.	Madras	96.5	98.0
9.	Maharashtra	72.8	100.0
10.	Mysore	61.3	64.0
11.	Orissa	33.9	52.0
12.	Punjab	90.6	91.4
13.	Rajasthan	50.3	54.3
14.	Uttar Pradesh	77.8	75.0
15.	West Bengal	14.8	21.0
	All India	60.3	75.0

organisation of vacation courses is yet another possibility which may be tapped. We would suggest these courses only for teachers with longer teaching experience. Three or four vacations may be utilised for the purpose. They should also sit for the regular examination along with others. Special institutional programmes will have to be chalked out for them.

10.26. In June, 1964, the National Council of Educational Research and Training constituted a Study Group to examine the possibility of starting correspondence courses for professional education of secondary as well as elementary school teachers. The committee in their report submitted in October, 1964, have commended the idea specially to clear the backlog of untrained teachers in service, and thus to form an essential part of the crash programme necessary for training a large army of teachers to implement schemes of compulsory education.

Incentives in In-service Education

10.27. The question of providing incentives in some shape is of vital importance, if we seek to make the movement 'going'. In the case of courses leading to an examination, incentives already exist in the shape of increments or promotion or eligibility for promotion to higher posts. In fact acquisition of a higher qualification is in itself incentive enough as it opens up vaster vistas of professional competence and promotion. The main problem is whether some incentives should be provided in case of in-service programmes not leading to a higher qualification. The future of in-service movement in the field of Indian Education hinges on this aspect. Teachers cannot be persuaded to take in-service courses only because they provide opportunities for professional and academic growth.

10.28. In most of the States in U.S.A., certificates are issued for a prescribed number of years and can be renewed only after giving evidence of taking additional college courses or in some cases of having passed examinations on prescribed books. We in India can take advantage of experience gained in other countries and evolve a system that may provide sufficient incentives and opportunities for professional growth of teachers.

We have some such practices in the profession of Law and Medicine. Every doctor and every lawyer have to act as internees before they are qualified to get registered in their respective professions. There is also a periodic renewal of registration. No one can practice the profession without getting proper registration. Registration may be cancelled for professional misconduct. Some such practice has to be introduced in the teaching profession also, besides provision of certain other incentives and facilities for in-service profession growth. Without such a provision, in-service movement may not be able to grow.

Special Preparation for Headmasters

10.29. From time to time, it will also be desirable to conduct short courses for such senior teachers who are likely to be promoted to headmasters. The proposed course should orient the intending candidates to the existing task of conducting a short school on proper lines in a democratic age.

Retraining of Teachers and Others

10.30. When new schemes are launched, re-orientation of teachers and other educational workers may become necessary for its successful implementation. For instance for Basic Schools, it may not be possible to get cent per cent basic trained teachers. It is, therefore, necessary that teachers trained in the traditional manner may be sent back to Basic Training Centres for retaining specially in Crafts and correlated techniques. Such courses are a regular feature in States like Madras and Bihar. Special institutions may be set up for this purpose or special arrangements could be made in the existing institutions. The State Institutes of Education could be charged to take direct responsibility to arrange re-training programmes either themselves or through some selected training institutions. These courses may be meant for primary school teachers, teacher educators as well as for inspectors specially those looking after primary schools. Emphasis may be laid on crafts and correlation and community activities.

The Inspector and In-service Education

10.31. A new chapter in the in-service education of elementary teachers has commenced with the establishment of extension centres, which are being attached to a few selected elementary teacher education institutions. But this will be a very long process since even five per cent of the existing institutions have not been covered by the Scheme. But the problem cannot wait, and the major portion of the work will have to be carried out by the existing inspection agency. This will be a very effectual weapon since an inspector in India combines both the administrative and the supervisory aspects of the problem. This is at once an advantage and a disadvantage. Advantage—because there may be no bottle-necks to his functions as an agency of in-service education. Disadvantage—because of the heavy load of work he may not have time or energy left for in-service education of teachers.

10.32. The inspector can attack the problem both by arranging programmes for his area as well as by orienting his own work that it helps the teachers grow professionally. The later calls for a fundamental reconstruction of the purposes and techniques of supervision. It may be worthwhile for inspectors to maintain individual records of teachers and consult them

before every visit and note fresh information after every visit. They should also hold individual and group conferences with them occasionally. Whenever they go to a school they should carry materials of value and discuss the same with the teachers. They should encourage teachers to visit other schools and help them to organise study groups for specific purposes or problems.

Conclusion

In-service education is a big challenge to the teacher, the administrator and the teacher educator. A teacher's knowledge is bound to rust, unless he keeps himself in touch with recent progress in education. How can he create a thirst for knowledge amongst his pupils, unless he himself shows a craving to know more. Here is a message, which Tagore has left for teachers,

“A teacher can never truly teach unless he is still learning himself. A lamp can never light another lamp unless it continues to burn its own flame.”

The Professional Preparation of Teacher Educators and Educational Administrators

Introduction

A DETAILED DISCUSSION of the different types of programmes for elementary teacher education institutions has been given in the preceding five chapters. Their success will mainly depend on how these programmes are implemented, that is on the quality of the instructors. With adequate professional and academic background, it will be possible for the instructors to handle the programmes properly. If they lack that background, they will be unequal to the responsibility. Thus adequate academic and professional preparation of teacher educators is the necessary pre-requisite for the success of the entire scheme.

11.02. There is another aspect, which deserves to be considered in this connection. It is indeed true that the primary objective of the Report under discussion is the presentation of model syllabi for elementary teacher education institutions. But indirectly, the Committee is also concerned with the improvement of instruction in elementary schools. This again depends on a number of factors, one of them being the supervision of elementary schools. It is often alleged that the inspection of elementary schools is not what it should be. A supervisor is generally the critic of elementary teachers, but is certainly not their friend, philosopher and guide. He fails to appreciate what is being taught in an elementary school. He is not able to lead the teachers, since he has not the necessary background. He fails to throw new light on the complex problems of elementary education, mainly because he has never pondered over them. In short, he is not in sympathy with what is going on in elementary schools. His new appointment, he considers, as a stop-gap arrangement for a brighter future in the field of secondary education.

11.03. While interviewing elementary teacher educators and administrators, we gathered that a large number of them were not professionally

prepared for their jobs. They had practically no experience of elementary education, when they were appointed either as supervisors of elementary schools or as instructors in elementary teachers' institutions. Many of them were the products of secondary teachers' colleges, and were B.Eds. These degrees have been designed to meet the requirements of secondary education and do not cater to the needs of elementary education at all. It is thus very necessary to frame suitable professional courses as pre-service preparation for elementary administrators and teacher educators.

Pre-service Preparation

11.04. It is rather superfluous to point out that teacher educators and school inspectors should be competent scholars as well as effective teachers. The pre-service education of these persons will, therefore, have to pay attention to two aspects: (a) academic background, and (b) professional preparation. During our visits to different regions, we found that while the majority of the States employ trained graduates as inspectors and teacher educators for the elementary stage, some of the States employ even undergraduate personnel for this purpose. This practice should be discontinued immediately, and every inspector and teacher educator under this category should be at least a graduate.

11.05. The programme for professional preparation should be comprehensive in nature. Since students tend to teach as they are taught, the teacher of teachers must be an example to emulate. There is no one set pattern which will lead to success in the teaching profession. Great teachers differ among themselves in their personal characteristics and teaching methods. There are, however, certain fundamentals which if recognised will help in the development of a teacher. An effective training for elementary teacher educators and administrators should enable them to meet the demands of a job requiring specialized knowledge, skills and attitudes and to keep them up-to-date with developments in their fields. The committee in this regard commends the report of a Working Group* of experts, appointed by the NCERT and the All-India Association of Teachers' Colleges. This group considered the following areas necessary for this purpose:

A. Theory

1. Sociological and psychological foundations;
2. Principles of curriculum construction and dynamic approaches to teaching;

* Appendix V.

3. Techniques and interpretation of educational research and evaluation;
4. Problems of elementary education, and
5. *Either* (i) Administration and supervision (for supervisors) *or*
(ii) Teacher education (for teacher educators).

11.06. The Working Group also felt that these courses should be at the post-graduate level, since the B.Ed. degree or an equivalent diploma is quite inadequate to give the teacher educator or a supervisor at the elementary stage that professional competence which is necessary to meet the new developments in elementary education in the country at present. The group felt that the qualifications of the instructors of elementary teachers' institutions should be similar to those of the teaching staff of the intermediate colleges and the top classes of the higher secondary schools, *i.e.*, they should have the Master's degree. And since they have to prepare teachers and administrators, they should have at least the degree of Master of Education or its equivalent. The Working Group, therefore, recommended that the proposed course should lead to a Post-graduate Diploma in Education or Master of Education and that the candidates who have taken the B.Ed. degree or an equivalent diploma, may be admitted to it.

11.07. Such a course should equip the teacher educators and educational administrators with latest know-how in connection with their work and the various methods of teacher education such as lecture-cum-discussion, seminars, workshops, symposia, and panel discussion. The Practical Work suggested includes a number of rich experiences including demonstration of teaching, supervision of teaching, organisation of school community programmes, child study, supervision and evaluation, etc.

11.08. The entire success of the scheme will depend on the instructional organization of the teacher education centre which would like to run such a course. It should have a post-graduate department in direct charge of the programme, an elementary teacher education institution where the trainees should try various methods of teacher education, and an elementary school for observation, investigation and experimentation with methodology of school teaching. In fact, the second and third institution should serve as the laboratory for the proposed programme.

In-service Education

11.09. It is hoped that all supervisors and teacher educators for the elementary stage will have the pre-service education as contemplated in the preceding section. Even the existing personnel, who are in this field at present and are under thirty-five years in age, will undergo the proposed course. But there will be a large number of persons, who will not come

under this category. It is proposed that a condensed in-service education programme of three months' duration should be organized for such persons. One word more. In its best sense, the training of a teacher or an administrator goes on endlessly. Unlike the skill of a juggler or any other mechanical artist, the skill of a teacher always leaves room for fresh improvement. It will, therefore, be always necessary to pay attention to continue improvement of personnel holding high positions either as supervisors or teacher educators. It should be obligatory on their part to go through a refresher course at least for three months in every five years.

Exchange of Teacher Educators

11.10. In addition to regular courses, provision may be made for an exchange of personnel not only within the State but also on an inter-State basis.

Another innovation that we could suggest is that there may be a periodic inter-change of persons working in training institutions on one hand, and those working on the inspection side and at the headquarters on the other.

Conclusion

Any improvement in teacher education can only be possible if intelligent competent persons are attracted as supervisors and teacher educators. This will not be achieved unless their social and economic status is raised. At present, these persons in many States are employed in the scales of trained graduates' scale of salary. Since the elementary teachers' institutions will be of the status of intermediate colleges, it is very necessary that the salary scales and service conditions including the status of elementary supervisors and teacher educators should be at least identical with those of the staff working at intermediate colleges.

A Teacher Training Institution of Tomorrow

Introduction

THE BROAD fields of a programme of teacher education have been delineated in the previous chapters. While due note has been taken of the materials the past has to offer in curricular development, the present has been brought under critical examination in order that the profile of the future may be drawn against the perspective of what is essential for the future, due consideration having thus been given as much to what has been handed down by history as to what is nourished in the present. This is a process that underlines any scheme of excellence—the recognition of the need of vigilance, revision and change which ultimately results in growth. An attempt is made in this chapter to propound a few basic ideas and features which may uphold a teacher education institution in days to come.

The Unity of the Individual and Social Obligations

12.02. It is expected that a society based on democracy and rule of law will continue to take permanent roots in our country wherein the individual is assured of his freedom and human dignity. The essence of such a society is that it not only breathes an air of political freedom but seeks as well to set up an order patterned toward economic democracy. It is thus reasonable to assume that an individual in days to come will be more and more called upon to preserve and extend the frontiers of freedom on many an operational aspect of life, such as government, justice, production, distribution, development and so on. As social functions become more and more streamlined along with cultural advancement—in our case largely conditioned by expanding industry and technology—social groups will become more and more interdependent and also closely inter-related in their common task to keep the community on the road to progress. In such a situation there shall naturally exist divergent viewpoints, tensions and even conflicts on many day-to-day issues and problems. The resolution of this

tension or conflict into creative channels will primarily depend upon the outlook and attitude of social groups who work with insight, understanding and goodwill in the interest of welfare for all. The creation of this sense of values in the total community enterprise against a fast-changing social complex is perhaps the minimum that any future programme of education has got to achieve—and not merely preach—if not for any thing else, then at least to stave off confusion and chaos. The day when our schools and communities succeed in creating men with practical vision capable of making wise decisions, will the race against catastrophe be finally won.

12.03. So whatever the nomenclature of a training institution of tomorrow, the fact remains that it has to look at the individual as a unity, a composite personality and deal with him as such, instead of looking at him as a mere conglomeration of drives, interests, abilities and aptitudes. For a long time our schools and colleges have carried on a stereotyped routine practice based on an idea that particular branches of knowledge can be assimilated or mental skills developed, such as skill in language, social sciences, mathematics, physics, chemistry, law, medicine and so on without due regard being paid to the total functioning of the personality in the larger content of human relationship and the over riding social obligations that flow from such relationship. It is a common experience that knowledge in law often leads to litigation, acquisition of scientific knowledge leads to a 'savage unheaval', command over language leads to a capacity to hide one's own mind. Education has little significance, if instead of drawing out the best in child and man, it ultimately results in acquiring a technical mastery aimed at getting a good job, achieving distinction or imposing domination over others. In a forward-looking society therefore education will be evaluated not merely in terms of its institutionalised training devices but in terms of the total liberalising effect it brings to bear upon the personality of the educand. The major function of a teacher education institution of tomorrow will thus be to educate prospective teachers in such a way that they look at the society with an integrated outlook and that their participation in community life is motivated towards creating new cultural values in the daily business of life. This can be done when the institution itself looks at the individual teacher as an integrated personality and shapes its programme accordingly so that the wood is not lost in the trees.

12.04. Viewed in this context, it will not be enough for a teacher education institution of tomorrow merely to preach a few social objectives, as is often the case today, but it has to be seriously preoccupied in realising these objectives in terms of persons whose response to social demands is in keeping with contemporary needs, who have the inclination and ability to do

certain things and whose activities influence the course of social progress. The programme has therefore, to be deliberately purposive in order to mould out certain kind of human product 'a concerned citizen'—rather than merely to guide an intellectual ramble for the prospective teacher through certain fields of routine pedagogy. This may sound as regimentation or some kind of compromise with the freedom of the individual but it is to be remembered that freedom never grows in a vacuum automatically, and that it has always to be tempered with self directed discipline in the interest of the greatest good of the greatest number. Thus although the student teacher, as a free citizen, must have the freedom, choice and opportunities of learning, he will need continuous guidance along the pursuit of his assignment so that he becomes not only a competent teacher but a useful citizen as well. The real test of an institution will after all lie in the ultimate sense in the quality of the citizens it sends out of its portals.

Experimentation and the Interaction of Theory and Practice

12.05. A training institution of tomorrow is to be engaged in considerable research work as part of its normal routine duties. Problems are to be formulated out of a number of issues—from basic ideals to post-training follow up work in school situations. As education will expand to reach the doors of every home in the country, general awareness about the purpose, process, and the outcomes of education will sharpen more and more at all levels of the society. Thus civic leaders, professional groups, business managers, ordinary tax payers, all should be vitally concerned not only with the growth of education but also the direction it takes to ensure the continuance of a society of their choice. Furthermore, uptil now education catered to the needs of the upper few in our society which naturally restricted, in a relative sense, the emergence of problems in and outside the school. But with the advent of universalization, new vistas will be made open extending enrolment to widely differing home backgrounds and economic levels. New workers, both men and women, will join the profession from all corners of the country bringing with them their individual and group problems. Then of course—remain the basic problems of philosophy, curriculum, administration, methodology, evaluation—all of which again are to be formulated and reformulated with alertness in the context of the present explosion of knowledge in basic subjects of humanities and sciences. Experimentation will thus be a *sine qua non* of any future programme of teacher education—as indeed it is already becoming so—even though there may still remain a gap between theory and practice.

12.06. Whatever the dimension of research, it goes without saying that the theory has to go through a practical test in any scientific experimentation. Since it is agreed that an educational programme is to be tested by its bearing upon the life of the community, it is generally correct to say that the community is the testing laboratory of education. In this sense investigation into educational problems is mainly dependent upon the availability of facilities in school and community designed and perceived in such a way that particular ideas, policies and programmes may be tested according to needs. It cannot possibly be denied that the development of educational and social techniques are not sufficiently keeping pace with material advancements in our society. Sooner or later education has to grapple with the problem which in the final analysis means that the future teacher education programme may be called upon to bridge the gap. All these situations have experimental possibilities as well as possibilities for verifying results arrived at through earlier tests. Schools can be effective testing grounds for improvement of learning situations. Instead of being a mere routine pre-service instructional programme, teacher education therefore widens itself into a comprehensive situation in which 'the teacher may be encouraged as a learner, as a theorist of education in the making and as a scientific student of the educational aspects of human affairs'. If educational theory is the theory of individual and social behaviour and action, the education of the teacher must be conducted with an eye to scientific proof and practical demonstration of validity. It is only then that theory and practice may progressively move forward in support of each other.

Content Subjects and the Need for Scholarship Resources

12.07. Another vital aspect about which awareness is increasing is the need to draw resources from different scholarship fields to make the teacher education programme adequate. It is true that there is a difficulty in drawing a sharp line of demarcation between why to teach, what to teach, whom to teach and how to teach. It is indeed questionable if a line can at all be drawn between what goes by the name of general or liberal education and the professional studies directly related with the science of education and teaching. The art of teaching requires intellectual achievement, social sensibility, scholastic interest and practical resourcefulness—all developed and applied to the teaching situation as an integral whole. It follows then that a future teacher education programme should be planned and laid out through mutually respectful cooperation of members of higher education drawn from the basic disciplines responsible for the progress of

education in society. This need will become all the more greater, as the length of teacher education programme is gradually extended to include the general education course with sufficient emphasis upon the content subjects or school subjects. It is perhaps true that at the present moment professional courses about how to teach enjoy a relatively greater weightage than content subjects. But a strong current is now on the move in favour of added emphasis upon the content subjects. It is thus reasonable to assume that in future our teacher education programme will need the best thoughts of all the professionals whose ideas can lay the real foundations of excellence and who can really work out the standards after it is set up. This will include the professionals in education with its many ramifications in philosophy, curriculum, methodology, personnel, foundations of education and history and so on. It will be inevitably necessary to draw from the best resources of academicians in general studies. Thus the substances of future teacher education is likely to be evolved on the basis of cooperative and complementary contribution of scholars both in the purely pedagogic and non-pedagogic fields.

Administrative and Organisational Feasibility

12.08. The realisation of the objectives outlined in the preceding chapters implies that a future teacher education institution can hardly be effectively run by executive mandates issued from any central administrative agency. Such centralization may create a uniform pattern in respect of curriculum and passing out, but its outcome would be self-defeating in the light of future needs. If education is to be sensitive and responsive to the needs of the local community, as it is bound to be in a progressive society, the institution responsible for the education of teachers can hardly be expected to justify its existence if the be-all and end-all of its enterprise is to get confined within the walls of the campus and conduct a guided tour through some predetermined subject-fields dealing merely 'with tricks of the trade'. It has to spread out into the surrounding areas, more as a venture of exploration than as a routine task, in order to take stock of its academic, social and cultural needs and then try to upgrade the cultural tone of the community. In such a situation a training institution, whose task is not merely 'to teach others how to teach' but to help others become 'concerned citizens', should have the liberty to chalk out its own programme—may be within the framework of a general pattern mutually decided upon by a fraternal body of training institutions operating in a particular region.

It, therefore, seems possible that flexibility in the control and administration of training colleges will be more and more the order of tomorrow when

central control of State departments and universities will be substituted by a policy aimed at making room for greater understanding, cooperation and joint endeavour between the universities and training colleges in the light of distinctive regional needs.

Physical Facilities

12.09. It is to be admitted that in order to live up to the expectations of the future and fulfil its tasks, a teacher education institution must have adequate facilities in respect of building, staff etc., in keeping with the nature and magnitude of its needs. The details of these requirements are summed up in the following pages.

Location and Area

12.10. Although the present tendency is still to locate the training institutions in urban or semi-urban areas, it is quite likely that with the increasing pace of expansion the need to set up institutions in rural areas will force itself. This is obvious since 70 per cent of the Indian population lives in villages. The overwhelming majority of our primary teachers at present work and will continue to work in rural areas, and it is best to prepare them in similar surroundings. The points to be kept in view in this connection are the questions of communication and transport, accommodation, facilities for financial drawals, capacity of the local market to supply commodities, medical aid and availability of pure drinking water, electrical power, an attached primary school and existence of quite a few schools within reasonable distance for purposes of teaching practice. There should also be schooling facilities for children of the teaching staff at least upto the secondary standard. A practical proposition may be to set up institutions within a few miles of small subdivisional towns, preferably in close vicinity of a Block Development Office.

12.11. Regarding area, it is recommended that in an institution where kitchen gardening and agriculture are among the basic crafts the total area should be at least 10 acres.

12.12. Building and Accommodation—The institution proper will have the following three sections:

1. Administration Block
2. Tuitional Block
3. Craft Sections

The Administrative Block will consist of—

(i) Principal's Room	.....	1
(ii) Office Room	.....	1
(iii) Record Room	.....	1
(iv) Reception Room	.....	1
(v) Small Rooms for individual lecturers	.....	16 (for 160 pupils)
(vi) General Stores	.....	1
(vii) Exhibition Room	.....	1 (1200 sq. ft.)

22 rooms

12.13. The Tuitional Block will consist of the buildings stated below. Accommodation in the teaching block will depend upon the size of the institution. It may, therefore, vary from place to place. The following details are however considered adequate for an institution of 160 to 200 student teachers with four sections.

(i) Classroom	—	4 (for four sections of 40 each; each pupil should be given 15 sq. ft. of space)
(ii) Laboratory	—	4 (for Physics, Chemistry, Bio- logy and Psychology)
(iii) Social Studies Room	—	1
(iv) Art Room	—	1
(v) Music Room	—	1
(vi) Physical Education Room & Gymnasium	—	1
(vii) Library with attached read- ing room	—	1 (capacity 150 seats at least)
(viii) Assembly Hall	—	1 (capacity 500)
(ix) Extension Wing	—	1 (one large hall with rooms)

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Crafts Section—The craft section may consist of—

(i) Agriculture & Kitchen Gardening	—	1 shed (with store)
(ii) Spinning & Weaving	—	1 shed
(iii) Wood work	—	1 shed
(iv) Basketry	—	1 shed
(v) Leather craft	—	1 shed
(vi) Tailoring & Needlework	—	1 shed

A few basic crafts are mentioned here. In fact selection of a craft will depend upon regional needs and availability of raw materials. So there should be as many sheds as there are crafts in an institution. There may be separate poultry and cattle shed also.

Library

12.14. Every teacher education institution should have a well-equipped library with a sufficient number of books, professional as well as general. It should have a good stock of books on 'Content' courses too. Regarding material facilities the following recommendations of a UNESCO Report on a Course for Teacher Educators are noteworthy:

12.15. Primary teacher training institutions should provide a well stocked and carefully selected library of professional books on the basis of at least ten volumes for every trainee exclusive of textbooks. The library should be so organized that trainees have easy access to the books.

These institutions should also be adequately provided with well selected educational journals. To meet the shortage of reading materials in the language of instruction, good books that were available in other languages might be translated by members of the faculty and selected students. This would be a worthwhile project for teacher training institutions.

12.16. Trainees should be encouraged and guided to produce instructional materials and teaching aids in the different subjects of the primary school, utilizing the available workshop facilities. Where facilities for workshops are not available, they should be provided.

12.17. A section of the library of every teacher training institution should be set aside for primary school materials, to enable student teachers to use these materials in the preparation of their practice lessons.

Residential Accommodation

12.18. In view of the residential nature of teacher education institutions at the elementary level the other items of accommodation will include :

1. Hostel Buildings
2. Staff Quarters

Hostel Buildings: The dormitory system should not continue any longer. Instead there should be 4-seated rooms with 60 sq. ft. of floor space per student-teacher. The hostels will have---

(i)	Kitchen	—	2 (1 for 80 student-teachers)
(ii)	Dining Hall	—	1
(iii)	Store	—	2
(iv)	Common Room	—	2
(v)	Doctor's Room	—	1
(vi)	Sick Room	—	1
(vii)	Safai Store	—	1
(viii)	Superintendent's Room	—	1

Residential quarters will include accommodation for

1. Principal
2. Lecturers (including the Medical Officer)
3. Craft Instructors
4. Ministerial Staff
5. Class IV Staff
6. Matron for the Hostel
7. Technicians for water and electric supply.

Requirements for the Model School Attached to the College

12.19. Every teacher education institute should have a model school of its own. It should be an institution with eight classes (I to VIII) and a *balwadi* section for child study facilities. The roll strength in the junior basic classes and *balwadi* should not exceed 30, while that in the upper three grades may be 40. The model school should not be unduly large to accommodate any number of admission-seekers. The main functions of a model school in today's world are:

1. The preparation of teachers for the fair teaching assignment,
2. The provision of a centre for the investigation of, creative application and demonstration of promising educative practices,
3. The discovery, development and generalization of important concepts about human growth and behaviour, and
4. The dissemination of what is learnt.

A model school should have atleast five acres of land with the following accommodation:

Headmaster's Room	—	1
Office	—	1
Classrooms	—	9
Science Room	—	1
Social Studies Room	—	1
Art Room	—	1
Music Room	—	1
Library	—	1 (hall)
Exhibition Room	—	1
Stores	—	2
		—————
		19 rooms
Craft Sheds	—	2 (according to number of crafts)

12.20. The Assembly Hall, playground and other physical education equipment of the teachers' college may be used jointly by the college and its attached school.

12.21. Regarding residential arrangement of the school, it is recommended that staff members should live within the same campus and they also are to be provided with quarters.

Staffing Pattern

12.22. An essential principle that should be strictly adhered to regarding appointment of teaching staff is that teacher educators should be thoroughly familiar with the theory, practice and problems of elementary education. They should have the experience of either teaching in an elementary school during their own professional training or at least supervising lessons imparted in elementary classes. (They should have undergone special training as envisaged in Chapter XI.)

12.23. It is also recommended that the load of a teacher educator is lightened so that he can put his best into his work. Some of the factors that should be considered in determining this load are the enrolment, the number of courses a teacher educator is required to teach, the teaching procedures used, and supervision of activities entrusted to him/her.

12.24. In view of the need for consolidation and effecting qualitative improvement in teacher education, it is recommended that the teacher-pupil ratio in an institution should be 1 : 10. This will exclude craft instructors or other specialist teachers. It is, however open to consideration whether the ratio can be increased to 1 : 15 in view of the fact that student-

teachers may receive guidance in their teaching practice work from qualified and experienced teachers of the schools. These supervising or cooperating teachers may supplement the guidance work of the regular lecturers. But our elementary schools, being what they are, can hardly be expected to provide such competent supervisory teachers to lessen the work-load of the regular college staff, at present.

Methods of Teaching

12.25. The question of work-load of teacher educators and the teacher-pupil ratio is intimately related with the methodology of teaching to be followed in a teacher education institution. There is no denying the fact that the only method followed at present in majority of institutions is the stereo-typed lecture method supplemented by pre-examination dictation of notes on selected important topics. The lecture method may not be bad in itself and it has an important place in teaching methodology. But when it becomes the only method, it defeats the purpose of education and makes examinations and passive acceptance of information the end of everything. So it should be judiciously applied along with other methods and techniques which stimulate independent thinking, intellectual initiative and mental maturity. These techniques may be summed up as follows:

1. Class lectures reinforced by discussion, written assignments and consolidatory self-study. Lectures should be supported by aids like graphs, models, films etc.
2. Independent library work for further reading.
3. Organisation of tutorial classes in small groups to encourage active participation of student-teacher in discussions and exchange of views on matters of topical interest or controversy. Besides, the tutorial classes are very much conducive to the growth of happy personal relationship between the educator and the student.
4. Dividing the whole class into small groups and then giving assignment to each group on some selected key topics of the syllabi. Each group will cover the topic independently by cooperative study and discussion among themselves, and then address the general class on the assigned topic, elaborate points, initiate discussion and answer questions. An educator of the institution may be assigned to each group to offer counsel in a general way with regard to bibliography and subject-matter.
5. Organisation of seminars and symposia on important topics of the syllabus or current educational problems on special occasions such

as the Basic Education Week, Teachers' Day, College Foundation Day, Reunion Day, etc.

6. Making an integrated approach to theory and practice. Instead of making the discussion purely topical, it should be situational as much as possible with an eye to actual realities in the classroom, home and society at large. To make this technique effective lectures may be supplemented by organised school visits and follow-up work in the form of specific projects. Teacher educators should demonstrate new techniques and such demonstration should be open for discussion.
7. Similarly practical craft work and community activities are to be conducted in accordance with a carefully laid out plan and executed with the precision and serious attention they deserve, if they are not to degenerate into a wasteful pastime. The costing procedure, quality of the products, records of the pupil's work, sale proceeds—all these have to be carefully done, maintained and shown to the student-teachers for their own carry-over to schools.
8. In order to perform these activities in a planned and systematic way as part of the overall routine, each institution must have a total plan of work to be evolved in the Staff Council of the institution. This blueprint of work should be as much specific and well-defined as possible, although subject to change and adjustment in the light of emerging work situations. It is only then that an individual teacher educator will know how he will adjust his own scheme of work to the general plan, what the objectives to be achieved in respect of each part of the syllabi are, what topics will be covered by which method, etc.

12.26. It may also be noted that one of the main objectives of a teacher education institution is to help in better integration of the knowledge pertaining to different subject fields in addition to developing good team work and understanding among the staff and trainees of the institution. In an elementary training institution it is desirable that the subject teachers do not limit their teaching only to teaching their respective subjects but should participate in the total programme of the institution. Group process is one of the ways of staff involvement as suggested above and of welding the faculty into a solid team. No single method can evidently be made sacrosanct in a developing institution which believes that Education is a growing subject. A combination of the methods as recommended above is therefore the logical conclusion. No doubt the teacher educator will be free to adopt the technique and method best suited to the topic in hand.

The method should not only adjust itself to the topic in hand but should also take into consideration the recipient of the knowledge as all good methodology does. What is needed is to establish effective communicative media so that learning is internalised and brings in the desirable change in behaviour. Unfortunately at the present moment the learning situations in the training institutions do not effect the desired behavioral changes.

12.27. The methods of teaching psychology and methodology will need serious examination in particular. By and large the teaching at present is book-centred. As a result student teachers have a tendency to memorise facts without understanding their practical implications. Teaching of psychology is seldom related to observation of child behaviour and to experimental work. Teaching of methodology is often not done in relation to content and is seldom evolved out of practical classroom practices or observations. Evidence shows that teacher educators themselves have very little or no experience of classroom instruction, nor do they conduct co-extensively any empirical child study. All this is making teacher training unrealistic and full of frustration for the future teachers. In the new insitution teaching of psychlogy and methods should proceed in a laboratory situation where the teacher educators as well as the trainees will have not only an opportunity to try out already gathered ideas but would also have opportunities to formulate hypotheses and try them out. The lecture technique should be vitalized so much so that it stimulates thinking and doing and also stimulates self study and a search for facts from original sources.

Conclusion

12.28. The effectiveness of a teacher education programme depends to a great extent on the institution which imparts it, on its philosophy, its surroundings, its staff, its equipment, and above all how the programme is imparted and the relation between the teachers and the taught. But our training institutions are today working under a large number of handicaps. The syllabi, we are following at present, are defective from several points of view, the staff is neither adequately paid nor properly qualified, and the physical equipment measured in terms of building, equipment or campus, is also far from satisfactory. It is no wonder, therefore, that the training imparted in our training institutions is not what it should be. In the institutions of tomorrow, the Committee hopes, these defects will be rectified to bring into being a virile and alert cooperative enterprise where the student-teacher can find a congenial atmosphere to grow.

Administrative Problems

Introduction

13.01. ANY PROGRAMME of teacher education, however limited in scope, raises a number of administrative problems. Unless these are solved, the programme cannot be implemented effectively.

The Committee was no doubt entrusted with the responsibility of framing suitable courses for the elementary teacher training institutions. But while working out the details of the course, the Committee realised that the suggested programme cannot be meaningful unless certain administrative problems are tackled. These are of varied magnitude and embrace fields like planning, financing, coordination and inspection, selection of inspectors and elementary teacher educators, production of literature and research.

Planning

13.02. It has been pointed out that the present capacity of the existing elementary teacher training institutions is about 1,20,000. It is estimated that during the next decade the existing training facilities would have to be increased three times. There are two ways to solve the problem.

- (1) Expand the training facilities of the existing institutions, and
- (2) Open new institutions.

Both the alternatives deserve a trial, but we have to proceed very carefully and plan cautiously. In this connection, it will be necessary for every State Department of Education to prepare its master plan of teacher education. It should make an estimate of total number of elementary teachers needed during the fourth and fifth plans, the training facilities existing at present, how the present institutions can be developed and expanded, where and in what form new institutions should be opened, and elementary teacher training schools can be interlinked with other types of teacher education institutions.

13.03. On the basis of the State plans, the Indian Ministry of Education can prepare the master plan for the entire country.

13.04. In expanding training facilities, the first step should be to increase the intake in each of the existing institutions. It is only after this possibility has been exhausted that the establishment of new institutions should be taken into consideration. While establishing new institutions, sufficient care will have to be taken so that these are opened near the teacher's home and specially in rural areas, since real India is in her villages and urban citizens are not willing to serve the country side. We will have also to consider the need of such backward areas, where hardly a few teacher training institutions exist.

13.05. On a very conservative estimate, it is felt that every *taluka* should have at least one teacher training institution. This will be necessary, if India wants to supply an adequate number of trained teachers for her elementary schools during the next decade.

13.06. For improving the tone of teacher training, it is very desirable to organise comprehensive teacher training institutions. This has been realised by a number of committees. For example, the COP Report of the Planning Commission advocated the centralisation of training of teachers at all stages in a single institution of teacher training to be designated as the, "Comprehensive training institute". The Baroda Report further held, "for the proper development of teacher education, it is necessary that the comprehensive college of education with a minimum strength of 300 students should be organised instead of isolated institutions for training teachers of primary and secondary schools.

13.07. In fact, a small sized, single purpose institution has a number of shortcomings. In addition to being inefficient and uneconomical to maintain, it fails to provide for that diversity of programme which sound education requires. It is, therefore, suggested that wherever practical, the possibility of organising comprehensive teacher training institutions should be explored. With kindergarten, primary, nursery and secondary schools attached to such an institution, identification and solution of problems of research would be easier and the institution will have a comprehensive laboratory for practical problems and experiments.

Finances

13.08. The development of a nation depends on the level of education of its citizens. The better the quality of education of the citizens, the better is the nation. India's progress is closely related to the education of her children. The plans are, therefore, on the anvil to bring all children of the age group of 6-14 to the school within the shortest period of time. The

plans necessarily envisage the employment of an army of teachers, who will have to be trained properly and paid adequately when employed as teachers after their period of training.

A training programme will involve an expenditure of large sums of money on building, equipment, library, etc. In addition, the trainees should get suitable stipends during their period of training and their teachers will have to be paid adequate salaries. Thus the success of the proposed teacher education programme rests particularly on financial resources.

13.09. Education is a State subject in this country, but the State Governments are not able to provide adequate funds for the development of teacher education programmes. It is high time, that the Government of India shares some responsibility in aiding this important aspect of education. We also hold that all teacher education should be free and that the entire cost should be borne by the Government—Central and State. Their respective roles need to be defined properly.

13.10. There is at present a good deal of controversy in the country for placing education in the Concurrent list. Considering the vital importance of teacher education and since it is professional education, it is recommended that the Government of India should assume greater responsibility for teacher education. So far as finances are concerned, it should:

- (1) bear all non-recurring expenditure on the development of existing institutions and establishment of new institutions;
- (2) cover the entire expenditure on stipends and salaries of trainees; and
- (3) award suitable block grants for the improvement of library, laboratory, furniture and equipment.

On the other hand, the State Government should meet the entire expenditure on the instructional and administrative staff. It should further spend definite sums of money per year on items like equipment, laboratory, library, furniture and other allied items.

13.11. We firmly hold that teacher education should be entirely free, and the student teacher under training should not be charged any tuition fees. In addition, every trainee should draw a stipend of Rs. 50/- per month during the entire period of training. It may, however, be pointed out that any trainee, who discontinues his studies or refuses to work as a teacher for at least three years after the completion of his studies, may be required to refund the entire stipend amount.

In addition to freshmen, it will be necessary to train untrained teachers already in-service. The Committee feels that in addition to monthly stipend, such teachers should be given full duty-pay during their entire period of training.

Coordination

13.12. One of the pressing needs of the day is the proper planning of teacher education on an all-India basis. Twenty-five years ago, we had hardly four hundred teacher training institutions in the country. Today, we have about fifteen hundred such institutions.

Realising the need for systematising the professional preparation of teachers on a national basis the expert bodies* on teacher education in the country recommended the establishment of a State Council of Teacher Education in each State as a statutory body. It was further suggested that these Councils should be affiliated to a National Council for Teacher Education. This Committee also favours the establishment of such bodies on the national and state level as early as possible. While the National Council will co-ordinate the activities of different State Councils, the functions of the State Council will be:

- (1) to prepare, in consultation with the universities and State Departments of Education concerned, programmes for the development of Teacher Education in the State and to supervise their implementation;
- (2) to assess the needs to train teachers of different categories and make this information annually available to teacher training institutions for their guidance in making admissions;
- (3) to set standards for teacher education by preparing curricula and syllabuses for pre-service and in-service training programmes at all levels of teacher education;
- (4) to prescribe minimum requirements for teacher training institutions as regards staff, equipment and accommodation with a view to maintaining standards;
- (5) to organise an evaluation or an inspection programme for the training institution and to award certificates or diplomas;
- (6) to accredit or recognise training institutions and to arrange for periodic inspections of training institutions and to supervise and give necessary guidance for their development;
- (7) to coordinate and promote training programmes and collaborate with other agencies in the State and outside in the furtherance of objectives of teacher education;
- (8) to prepare plans and programmes for the development of teacher education in the State, and for qualitative improvement by periodic reviews of curricula and syllabuses and by arranging for a built-in mechanism for reviewing the curricula.

* The Study Group on the Training of Elementary Teachers in India (1963) and the Study Group on the Training of Secondary Teachers in India (1964).

13.13. The constitution of a State Council may be different according to the specific needs of a State. Generally, it may consist of representatives of the State Department of Education, the universities, the teacher training institutions, and school teachers.

inspection

13.14. Every State has its own individual policy regarding the inspection of its elementary teacher training institutions. While the general practice is to entrust the educational inspector with this responsibility, the principals of government secondary teachers' colleges discharge this function in some States. Of the two practices, the latter is perhaps more desirable since the advice of experts on teacher education is available. But these experts may not come upto the mark, since the staff of secondary teachers' colleges are not expected to have adequate experience of primary education.

One of the main functions of the proposed State Councils of Teacher Education will be "to arrange for the inspection and supervision of the training institutions recognised by it". Till such bodies are set up, it will be necessary to create the post of a deputy director of teacher education in every State. It will be his duty to arrange for annual inspection of teacher training institutions. This can be carried out by panels of experts—officials and non officials.

The Selection of Inspectors and Teacher Educators for Elementary Education

13.15. One of the main causes hampering the proper development of elementary education in this country is the lack of leadership. The majority of inspectors of elementary schools and teacher educators of elementary teacher institutions have neither faith in the existing school programmes nor sincerity of purpose. Like birds of passage, they mark time in the field of elementary education and keep a vigilant watch for promotion in the field of secondary education.

They cannot be blamed for adopting such an attitude. Their pre-service professional training has not equipped them to shoulder the responsibility of the exacting task of elementary education. The majority of them feel shaky when they are appointed as inspectors of elementary schools or as instructors in elementary teacher institutions and even most devoted workers do not succeed as friends, philosophers, and guides of elementary teachers.

13.16. During our visit to different parts of the country, we observed that the elementary teacher educators do not have adequate academic background and professional preparation and the inspectors of elementary

schools are not what they should be. Three things are necessary for improving the existing situation:—

- (1) All fresh elementary teacher educators and inspectors of elementary schools (including those who have put in less than three years' service) should undergo one-year post-graduate training in Elementary Education after their B.Ed. training.
- (2) Existing senior officers of the above category and others who may be promoted to shoulder the above responsibility later in their career should undergo a training course of three months' duration specifically designed for the purpose; and
- (3) The scales of salary of elementary teacher educators and the inspectors of elementary schools should be at par with those of lecturers of higher secondary schools.

13.17. There is another drawback, which demands immediate attention. Some of the States are employing undergraduates to teach academic and professional subjects in elementary teacher training institutions. Such ill-equipped teachers prove a failure. We strongly hold that the employment of such teachers in elementary teacher training institutions should be immediately discontinued.

13.18. The frequent transfer of the teaching staff of government training institutions is another handicap. Due to lack of continuity either in administration or teaching, instruction in the majority of State institutions suffers. This is not a desirable practice, and should be stopped immediately. A principal or an instructor once appointed in a teacher training institution, should be continued there for a minimum period of five years.

Relations with Other Bodies

13.19. The majority of training institutions have kept themselves aloof from the main currents of elementary education. They have not kept themselves in touch with practical realities of the needs of the masses. They have remained isolated and devoted themselves entirely to teaching. This is not desirable. They should keep themselves in constant touch not only with elementary schools but also with the authorities administering them.

The movement for setting up Extension Services Departments is bringing the training institutions into closer contact with workers in the field of elementary education. But this is a very slow movement, and the training institutions should not wait till they have such approved units or departments. They should organise their own extension activities, however, limited in scope they may be.

State Institutes of Education

13.20. The establishment of the State Institutes with their programmes of in-service education and investigation has opened a new chapter in the professional education of elementary teachers and administrators in this country. One of their major responsibilities will be to knit together different elementary teacher training institutions within the State into one common fraternity, concentrating their attention on the progress and improvement of elementary education. They should also pay attention to their qualitative improvement.

Every State Institute should further conduct investigations regarding suitable accommodation facilities and essential equipment necessary for an elementary teacher training institution. In cooperation with other agencies, it should further develop designs of buildings for training institutions with a view to keep their cost of construction at the minimum. A State Institute should also prepare a suitable list of library books for teachers and teacher educators.

Universities and Elementary Teacher Education

13.21. There is a general agreement that the training of elementary teachers in the country is not what it should be. Lack of leadership is one of the main causes of this unhappy situation. While in other advanced countries, the universities have given a new shape to elementary teacher training, the Indian universities have kept themselves aloof from elementary teacher education programmes.

And they cannot be blamed for adopting such an attitude, since education below the matriculation standard was beyond their purview. According to the proposed plans, matriculation pass will be the minimum qualification for admission to an elementary teacher education institution. This will make it possible for the universities to bring within their sphere some of these institutions. The COP Team has considered this plan as practical. But the Team envisages the entire training of elementary teachers to be kept within the jurisdiction of the universities. While discussing the role of the proposed State Council of Teacher Education, it remarks, "The simple machinery would be to make universities responsible for the academic control of the total training programmes, both at the primary and secondary levels, and Government and private institutions may continue to have the administrative control."¹ This is a very healthy suggestion, but not practical. It may be realised that for some years to come a comprehensive

¹ COP Team. *Report on Teacher Training* Delhi. Government of India, 1964 p. 81.

teacher education programme in this country will include the training of matriculates and non-matriculates and teachers of various categories. The co-ordination of different types of teacher education programmes can be done effectively by the proposed State Council of Teacher Education. But this should not prevent the Indian Universities from giving recognition to elementary teacher education institutions. In fact, every University Department of Education should have an Elementary Teacher Education Unit. It should conduct experiments and researches on the problems of elementary teachers and should inspire and guide other institutions of elementary teacher training.

Administrative Problems of Elementary Teacher Institutions

13.22. The main considerations, regarding the conduct and organisation of elementary teacher institutions have already been examined. A few administrative problems, relevant to them, are examined here.

Admission Procedures

13.23. Foremost among these problems is the procedure for admission of candidates to training institutions and allocation of seats to teachers in service and freshmen. In some States like Gujarat, Kerala, Madras, Maharashtra and Punjab, the seats in the training institutions are mostly occupied by fresh candidates. But in some of the States like Assam, Madhya Pradesh, Orissa and West Bengal, where a large number of teachers in schools are untrained, the problem of allocation of seats to freshmen and teachers in service assumes a great importance. In regard to selection for admission, we hold that in the case of untrained teachers in service admission should be made on the basis of seniority.

13.24. Difficulties arise in the case of selection of freshers, since every State has its own line of action. While some of the States have no fixed procedures, others reserve a large number of seats for ladies and candidates of backward communities.

Every State Department of Education should define the admission policy. It is desirable that the selection of candidates is entrusted to a committee consisting of the Head of the institution, a member of the State Department of Education, and one or two educational experts nominated by the Department. The selection should be made on the basis of: (1) previous school record, (2) results obtained by the candidate on aptitude tests, specially designed for the purpose; and (3) interview by the committee. Based on these criteria, approximately three-fourths of the candidates should be selected according to their merit. The remaining seats may be

reserved for those ladies and candidates who may not fall under the first category. Candidates less than sixteen years of age should not be admitted.

13.25. It will also be necessary to evolve reliable and valid tools for selection. In order to do this, it is necessary (1) to formulate the essential qualities which makes a good elementary school teacher, (2) to ascertain which of these qualities should be developed in the years of schooling prior to admission into the training colleges; and (3) to find out which are the qualities and competencies which should be the responsibility of the training institutions to develop during the training courses. After doing that, it is considered desirable to devise tools and adopt means of selection so as to find out what qualities the prospective candidates already possess and also to discover their potentiality for further development.

A good scheme of selection would aim at locating the following: (1) if the candidate has the right attitude for being a teacher, (2) if he has the potentialities to follow the course in the training institutions, (3) if he has sound grounding in language expression and simple mathematics, (4) if he has developed special interest in specific fields of curricular and co-curricular activities, (5) if he has experience of handling children of age group 5-14 in schools, play centres, clubs, games, crafts, music, art, dramatics etc., and (6) if he possesses sound health.

13.26. The pattern of selection in such a scheme will have four phases:

1. **Written tests** (essay and objective type) which should include (a) Aptitude Test, (b) Test in content (Language and Maths) and (c) Test in General Knowledge.
2. **Performance tests.** These will identify the skills in crafts, art, music, games etc.
3. **Interview.** In the interview candidate's past record including cumulative record cards if available may be examined besides other things.
4. **Try-out.** In which the candidates may be kept under observation by the faculty of the training institute for a month and undesirable candidates may be weeded out. This stage will necessitate completion of all admissions at least two months before the course starts.

13.27 *Note:* It is desired that the training institutes should enjoy complete freedom in the method of selection and at the same time make full use of the responsibility entrusted to them. It is considered necessary to associate the local appointing authorities in selecting trainees for admission. If necessary the training institutes may form into a Delegation which will adopt common selection procedures

and devise common tools. Reservation of seats as recommended earlier may be provided for, where essential, but the lowering of qualifications should not be permitted at the cost of losing the homogeneity of the student body. The quality of teachers will depend on the quality of selection and the quality of selection will depend on the quality of tools that we use and the pains and care, we take for it. It is also necessary to evaluate the selection procedures by finding out correlation between the pre-admission data and the post-training results.

Wastage

13.28. It is noticed that approximately 25 per cent of the trainees enrolled in elementary teachers' institutions either discontinue their studies during the course, or even if they complete the course they do not take up the final examination¹. While poverty compels some to discontinue their study, perhaps better prospects elsewhere prompt others to stop their studies in teacher training institutions. While the provision of suitable stipends may perhaps succeed in holding back a large number of trainees, the scales of salaries for elementary teachers will have to be improved to retain others.

It is also found that over twenty per cent of the candidates fail in the final examination. Better teaching methods, and the selection of properly equipped instructional staff may improve the situation to a great extent. Another desirable step will be to stop the present practice of permitting a trainee to join the institution at any time of the academic year. During our visit we found that the selected candidates are not deputed in time and a large number of them are admitted even during the middle of the first academic term. This practice should be stopped. All candidates should join a teacher training institution within a fortnight of the commencement of the academic year. It is also suggested that the number of working days may be increased to 250 in all teacher education institutions in an academic year.

Staff

13.29. *Teacher-Student Ratio and Teaching Load.* In order that teacher education is worth while we feel that under ideal conditions the teacher-student ratio should be 1 : 10. But under no circumstances should it go beyond 1 : 15.

1. *Report of the First National Seminar.* p. 61.

It is also recommended that the load of a teacher educator should be lightened so that he can put in his best into his work.

Size of the Institution

13.30. The First National Seminar on Teacher Education as well as the Study Group on the Training of Elementary Teachers in India have recommended that the optimum size of a training institution should be somewhere between 160 and 200. There is now general agreement on this point. A few educationists also hold that a training institution should enrol as many as 500 students, since a large sized training institution can provide better library, better laboratory, more specialized teachers and keep the overall expenditure within reasonable limits. This aspect was examined by the All-India Seminar on the Elementary Teacher Training Programme, which admitted that while an institution of this type "would be academically sound and economically beneficial, it was felt that such large institutions will be too large for organising practice teaching satisfactorily in the present rural surroundings."¹

This difficulty will surely arise, if the objective of the institution is to train teachers for the elementary schools only. What is more desirable is to develop comprehensive colleges, as envisaged by the Study Team of the Committee on Plan Projects and developed later by the Baroda Report.² This scheme will not only secure the main advantages of a large-size institution, but will also integrate the training of elementary and secondary school teachers in the same campus. While a number of elementary teacher institutions can be merged with existing secondary teachers' colleges, others should be encouraged to do a better job of just what they are doing now—training of elementary teachers. They can take up the additional programme of preparing elementary administrators and teacher educators, as well as the training of pre-primary teachers.

Production of Literature

13.31. There is at present an acute shortage of professional literature appropriate for teachers and teacher educators. Suitable books in Indian languages are yet to be written; those which have been published have

1. NCERT *Report of the All-India Seminar on the Elementary Teacher Training Programmes*, 1963, p. 6.

2. Report of the Study Group on the Education of Secondary Teachers in India, Baroda, (March 2 to 7, 1964), Chaptre IV,

borrowed western ideas unsuitable for this country. An immediate task before the country is the production of guide books for teacher educators and reading materials for the trainees and even teachers in elementary schools on pedagogic subjects. These will have to be written in Indian languages, suiting Indian conditions. This responsibility can be entrusted to the National Council of Educational Research and Training, the State Institutes of Education, University Departments of Education and Teachers Colleges.

The non-availability of adequate children's literature is another great weakness of Indian education. The primary responsibility for this programme should be on elementary teacher institutions, since they prepare teachers who teach in elementary schools.

Conclusion

13.32. These are some of the main problems facing the administration and organization of elementary teacher education in this country. With the general growth of education, many more problems are bound to arise. They will have to be examined from time to time. Their solution will need the immediate attention of teacher educators.

13.33. Research has never been within the purview of the staff of elementary teacher institutions. In fact, they have never thought of research and they have no time to do research. Furthermore, problems to be investigated are of such a nature that they are beyond their technical skill and the limited resources and facilities available in the institutions.

With a teaching staff, academically and professionally better equipped, it will be possible for an elementary teacher institution to do some research, which may not be of high academic type but may be designed to solve the day-to-day problems of teaching and learning. Thus the emphasis should be on those types of problems that come under the category of 'action research', leaving other more basic types of research to the State Institutes of Education and University Departments of Education.

Conclusions and Summary of Main Recommendations

SINCE INDEPENDENCE India is confronted with a number of important problems, one of them being the provision of free, compulsory education of all children of the school-going age. A great step in this direction was taken when the constitution adopted by free India on January 26, 1950, declared:

The state shall endeavour to provide within a period of ten years from the commencement of this constitution for the free and compulsory education of all children until they complete the age of fourteen years. (Art. 45).

14.02. But this directive could not be implemented in spite of the sincere and constant efforts made by our administrators and educationists. The task to provide schools and teachers for the hitherto unserved sixty-five per cent of children of 6-14 years has been colossal and complex. It may be realised that at the attainment of independence, only 14.1 million (or 35 per cent) of children in the age-group 6-11 were enrolled in classes I-V. It rose to 34.3 million (or 61.1 per cent) in 1960-61, and is expected to rise to 49.6 million (or 76.4 per cent) in 1965-66. There has been a similar expansion in middle school population. The total enrolment in the middle school stage or classes VI-VIII has increased from 2.04 million (or 9 per cent of the population in the age-group 11-14) in 1946-47 to 6.29 million (or 22.8 per cent in 1960-61). It is expected to rise further to 9.75 million (or 28.6 per cent) by 1965-66. The immediate target before the country is that by 1975, we should enrol in schools 100 per cent of the children in the age-group 6-14. When this expansion is reached, the total enrolment of children in the primary schools of the country would be almost equal to the entire population of the United Kingdom. It has, therefore, been rightly said that the programme of expansion of elementary education has no parallel in the past history of education in India and hardly any parallel even in the history of world education.

14.03. The expansion at the elementary stage has been accompanied by a considerable improvement in the quality of education, since it is fully realised that elementary education is the minimum necessary both for

political stability in a democracy and for its economic regeneration¹. Education is thus one of the best forms of national investment.

14.04. The cornerstone of a good educational system is however, a corps of properly qualified teachers. As Bereday and Lauwreys say, "However enlightened the aims, however up-to-date and generous the equipment, however efficient the administration, the value to the children is determined by the teachers."¹ If elementary education in this country is to meet successfully the challenges which it faces, it must recruit a cadre of qualified and competent teachers. The man-power problem is of vital importance to the national interest, inspite of the fact that education is a State function in this country.

14.05. Teacher preparation has to be considered under the twin aspects of quantity and quality. Quantitative expansion of teacher supply is by itself a formidable problem, because of the projected extension of universal elementary education. But the problem of elementary education is not merely a function of numbers but of the provision of intelligent and imaginative teachers to meet the demands of large scale conversion to the basic system.

14.06. With this objective in view the Government of India have repeatedly suggested that the minimum general education expected of elementary teachers should be the completion of the secondary school, that the duration of training should be of two years and that this training should be of the basic pattern. It has also been agreed that for some years relaxation might be permitted in the case of women teachers, persons from the backward communities, and in the under-developed areas, but these should be treated strictly as exceptions and attempt should be made, through the development of secondary education and encouragement for the education of girls and the backward communities, to keep them to a minimum. Although this policy has been in existence for sometime past, the progress in these fields has not been very satisfactory. In several states the duration of the training course is still one year, non-matriculantes are still admitted in training institutes, and the percentage of trained elementary teachers is still low.

14.07. The problem cannot be postponed, and there cannot be a compromise. Half-hearted measures are more dangerous than negligence. There is, therefore, no more important matter in the field of elementary

1. Bereday, George Z. F., and Lauwerys, J. A. (Eds.). *The Education and Training of Teachers*. The Yearbook of Education, 1963. New York: Harcourt Brace and World, Inc., p. 12.

education than that of securing a sufficient supply of the right kind of people to the profession and providing them with the best possible training. This Committee, therefore, once again stresses:

1. Matriculation pass should be the minimum qualification for admission to the teaching profession;
2. The duration of the course should be two years; and
3. The training course should be of the basic pattern.

Since the academic background of the candidates is generally not upto the mark, the Committee suggests that the programme should include a core curriculum of liberal and general education. The Committee also agrees that relaxation will have to be permitted for some time to come in the case of women teachers and persons from the backward communities. But the Committee does not like to sacrifice quality on the altar of compromise and suggests that such candidates should undergo a training programme of not less than three years' duration.

14.08. It is gratifying to note that some of the states have adopted a policy of appointing a few graduates either as teachers or headmasters of elementary and primary schools. The professional background of these teachers is inadequate since they go through the B.Ed. course which aims at the preparation of secondary rather than elementary teachers. The committee, therefore, considers it necessary to prepare a special programme for these graduates, equipping them as teachers and headmaster of elementary schools. For clearing the backlog of untrained teachers above the age of 35 years, suitable correspondence courses have also been suggested.

14.09. The efficiency of a training programme, however, depends on two factors, viz., (1) the quality of teacher educators and the administrative staff of elementary education; and (2) the plant and equipment of the training institutions. It may be noted that the staff of our training institutions is neither adequately paid nor properly qualified; the administrative staff of elementary education are misfits in their field since they have not the necessary background to shoulder the responsibility; and the physical equipment of our training institutions, measured in terms of building, equipment or campus, is also far from satisfactory. The Committee, therefore, suggests a course of instruction for teacher educators and administrators suiting the specific requirements of elementary education. The Committee also suggests minimum standards regarding staff, accommodation and library facilities for an elementary teacher training institution with an enrolment of 160-200 students.

14.10. The Committee has felt the need for continuous in-service education for teachers, teacher educators and administrators for elementary

education and made suggestions thereon. At the same time a number of administrative problems like planning, financing, coordination, admission policy, recruitment and promotion of staff plague the preparation of elementary teachers. These have also been discussed by the Committee.

14.11. A revolution of rising expectations characterizes Indian education today. Aroused by the need for improved educational opportunities for all, Indian educationists are striving to meet these expectations by getting the nation's schools and colleges, staffed by none but excellent teachers. Today, teacher preparation is in the forefront in the country's plans for educational reconstruction.

14.12. The education of teachers is too important to the nation to be left to the sole jurisdiction of any single group—whether teacher educators or the State governments. It needs the co-operation of teachers of training colleges and of arts and science colleges, of elementary and secondary teachers as well. In addition to the policy of cooperation, there is need for co-ordination at the State and national level. Hence the Committee once again stresses the need for setting up National and State Councils of Teacher Education. After all, no single agency can shoulder this *Atlantian* load.

14.13. Teaching is an exciting but challenging profession and a teacher's work is extremely varied. Each student is different; each has his own needs, interests and capacities. The teacher needs to understand child growth and development and to have a working knowledge of psychology and pedagogy in order to fit the child to the growing needs of the Indian democracy. It is hoped that the proposed programmes will equip the teacher adequately to meet these challenges.

14.14. Summary of Recommendations

CHAPTER III: Elementary Teacher Education in India Today

1. The places for the elementary teacher-trainees should at least be trebled during the Fourth Plan period.
2. More expenditure on teacher education is required to improve the facilities and to provide the trainees scholarships, leave salaries, etc. on a 100% basis.
3. Share of expenditure for teacher education in the total expenditure on education should be stepped up.
4. The preparation of teachers has to be strengthened qualitatively as well,

CHAPTER IV: An Analysis of Present Position of Teacher Education at the Elementary Stage in India

5. The training period for post matriculates should in no case be less than two years. For others with lower qualifications it should be proportionately lengthened.
6. There is need for adequate and scientific procedures for selection and admission of candidates.
7. Reservation should be reduced progressively to ensure adequately qualified entrants to the profession.
8. Approach to teaching in the training institutions should be an integrated one.
9. Practice of Education needs strengthening.
10. All teacher educators should possess both pedagogic and craft education.

CHAPTER V: Objectives of Teacher Education and Basis of Curriculum Construction

11. The place and importance of a teacher in a community cannot be overestimated. He has been called a nation builder and a saviour of mankind. The elementary teacher in India today is responsible not merely for mediation in the task of transmission of knowledge and skills, but he has to lay the foundation of a full and vigorous personality. He has to create conditions in which children with varied strengths and capabilities will find a congenial atmosphere to grow.

Besides the teacher is the social architect. He needs a vision of the direction and destination of social change. He has to influence not only the children but the community in that direction. He has to play the role of a leader in a community where other leaders may be lacking.

12. To be and to do all this the teacher has to be a mature citizen himself. He has to have qualities of a good and effective citizen.

13. In view of the above it will be desirable to recommend the following objectives of teacher education for elementary level.

A. To help trainees in the following understandings:

- (a) To understand the developmental needs of elementary school children at various stages of growth.

- (b) To understand the cultural and social needs of a secular and democratic society in a scientific age.
 - (c) To develop insight and synthetic understandings in regard to the harmonious development of the individual as an ideal citizen.
 - (d) To help understand the philosophical, sociological, psychological, historical and economic bases of Basic Education.
 - (e) To help understand the factors which influence education and also the growth and development of the society.
 - (f) To help understand the potentialities of a craft as an educational medium.
- B. To help trainees in the following skill and abilities:
- (a) Clear expression of thought in fluent and correct speech (mother-tongue and the national language);
 - (b) Ability to conduct empirical child study in order to identify child's needs, urges and attitudes;
 - (c) Ability to conduct community surveys in order to locate in which direction the community is to develop and link the school with the community;
 - (d) Ability to evolve and adapt methods and techniques (Basic methods) suited to different environmental situations and help realistically and effectively in the integrated growth of children in those situations;
 - (e) Ability to build up curricular content around different units of activities and experiences—ability to organise units of lessons, in relation to crafts and creative activities, social and physical environment, and physical and social living in Indian democracy;
 - (f) To develop enough skill and ability in at least one (preferably two) crafts to enable him to deal with it with sufficient mastery and confidence;
 - (g) Ability to produce, love and appreciate, and evaluate critically child-literature for various subjects and be equipped with methods of helping pupils use books for reference purposes;
 - (h) Ability to teach different school subjects in correlated manner enlisting maximum involvement of children in the learning process;
 - (i) Ability to know individual differences and individualize instruction;
 - (j) Ability to organise school as self-governing, creative, active, cooperative and democratic community thereby to prepare students as responsible and cultured citizens. Ability to lead the community intellectually;

- (k) Ability to improvise, prepare and use teaching aids suited for imparting early education in India;
- (l) Ability to evaluate growth and the impact of school on the community from time to time; ability to locate strengths and weaknesses of the school programmes; ability to interpret test results and to adopt remedial measures; ability to maintain different types of school records—cumulative records, craft records, office records, etc.
- (m) Ability to formulate goals of different activities in school and community, to organise the activities, maintain records of the work done and to evaluate the outcomes;
- (n) Ability to survey, locate and understand problems of present-day Indian society and ability to suggest and attempt their solution with a scientific approach; and
- (o) Ability to build up relationships, foster inter-group understandings, national and international understandings and emotional integration; ability to work with people—children, fellow-teachers, parents and other community members.

C. Development of a positive attitude towards:

- (a) Teaching profession;
- (b) Basic education;
- (c) Manual work,
- (d) Social welfare work;
- (e) Scientific approach in professional work; and
- (f) Humanity.

14 Different kinds of programmes:

- (a) Keeping in view the competencies required to be developed as well as the educational, social and economic situation, the committee recommends that the elementary teachers should have successfully completed secondary education and then undergone a two-year teacher education programme
- (b) However, if in certain areas and certain communities there are not enough of such candidates, middle pass may be accepted as a qualification for undergoing the teacher education programme. But this should be treated as a purely temporary measure to be ended very soon indeed. Moreover, such candidates should undergo a three year teacher preparation programme, after which they should be entitled to the same salary and benefits as the category mentioned at (a) above

- (c) Minimum age at the time of admission to the pre-service course must be 16 to make the programme meaningful
- (d) Some states are in the welcome situation of employing graduates. Their pre-service programme should be one year's duration.

15. Basic principles for curriculum construction for elementary teachers:

To achieve the aims mentioned above the curriculum will be organised under the following heads. However these will vary in details for the three categories of teachers.

- (a) General Education. To broaden the vision and cultural outlook. It may, however, be redundant for graduates and too difficult for the middle pass. Hence it is recommended only for the post secondary candidate
- (b) Content-cum-Methodology Courses to consist of:
 - (i) Remedial programme to ensure that all student teachers are familiar with the entire curriculum of the elementary school.
 - (ii) Advanced content course. This will not be necessary for the graduates. The middle pass will attain the High School level in all subjects. The matriculates will carry it a little beyond.
 - (iii) Methodology peculiar to each subject.
- (c) Theory of Education
- (d) Practice of Education
- (e) Crafts—two: one at major and the other at subsidiary level.
- (f) Music and Art; Recreational and Cultural Activities
- (g) Community Life and Community Service including Physical Education and Health

16. To achieve proper results in this rich programme it is recommended that the institutions should be residential with accommodation for the staff as well.

CHAPTER VI: **Programme for the Post-Middle Candidates**

17. The period of training should be three years.

18. The programme should consist of the following parts:

- A. Content-cum-Methodology Course in
 - (i) Mother Tongue/Regional Language

- (ii) Mathematics
 - (iii) Science
 - (iv) Social Studies
- B. Theory and Practice of Education
Theory to be studied under the following three papers:
- (i) Principles of Education
 - (ii) Principles of Teaching and the Basic School Curriculum
 - (iii) Problems of Elementary Education
- Practice of Education should among other things include the following:
- (i) Observation and discussion of observed teaching.
 - (ii) Preparation for teaching.
 - (iii) Class-room teaching including internship
 - (iv) Child study.
 - (v) Familiarity with children's literature.
 - (vi) Familiarity with local folk culture.
- C. Craft—at least two crafts one at the major and the other at subsidiary level.
- D. Art, Music and Recreational and Cultural Activities. This should include the following:
- (i) Art and Art Appreciation.
 - (ii) Teaching of Art in the school curriculum.
 - (iii) Art Practical.
 - (iv) Familiarity with artists and musicians in the country.
 - (v) Familiarity with musical instruments and ragas and dances including folk singing and folk dancing.
- E. Community Life, Community Service including Physical Education and Health.

This programme aims at familiarising the student teacher to organise and participate in the corporate life of the institution for work, learning and recreation. It should further enable him to carry out surveys of the community resources and needs to make the optimum use of school-community relationships for benefit to both. Finally it should give him the ability to elicit community co-operation for its own improvement and to participate in the health and community development programmes in the vicinity of the school.

F. Specialisation.

Above average and really keen students may be permitted to offer an additional optional.

For this purpose the Committee recommends the following subjects:

- (i) Hindi
- (ii) Art
- (iii) Music
- (iv) Physical Education
- (v) Craft

19. The distribution of marks should be as follows:—

A. Content-cum-Methodology	..	300	} 1000
B. Theory of Education	..	300	
Practice of Education	..	200	
C. Crafts	..	100	
D & E. Art, Music, Community Life and Community Service etc.	..	100	
F. Additional optional	..	100	

CHAPTER VII: **Programme for the Post-Secondary Candidates**

20. The programme will be of two years duration and will have six parts.

21. **General Education**

This is suggested as a non-examination course connected with the content subjects. The purpose is to deepen the insight and give a broader vision. Success of the programme will depend on how the teacher educators are prepared for it and how far the libraries are adequately equipped.

22. **Content-cum-Methodology Courses**

These courses have been planned to suit the elementary school syllabus. Since student teachers do not come with the same competence in all the areas, remedial work will be needed to fill up the gaps in the knowledge and skills of the student teachers in the elementary school subjects.

The content courses will also aim at deepening the information.

Each subject will be discussed along with its methodology of teaching.

23. Theory and Practice of Education

Theory: Three papers

- (i) Principles of Education
- (ii) Principles of Teaching and Basic School Curriculum
- (iii) Problems of Elementary Education.

Practice:

Besides class-room teaching in the elementary schools, it will include observation of school, of lessons including demonstration lessons and of children--child study. The student teachers will be required to do Unit and lesson plans and prepare aids to teaching. They will also participate actively in organising the activities in the school.

- 24. Crafts: (At least two crafts--one main and the other subsidiary)
- 25. Art and Music (recreational and cultural activities)
- 26. Community Life and Community Service including Physical Education and Health
(For details under 25 and 26 reference may be made to Chapter VI above).
- 27. One additional optional subject (only for those who want to offer).

The following areas are suggested:

- (i) English
- (ii) Hindi
- (iii) Remedial Education
- (iv) Art
- (v) Crafts--specialisation in craft would be in the area of the main craft and higher skills will be aimed at
- (vi) Physical Education
- (vii) Music

- 28. The distribution of marks will be as follows:

Theory (including content courses)	600	}	
Practice of Education	200	}	
Craft	100	}	10000
Art, Community Life and Community Service etc.]	100	}	
Additional Optional	100	}	

CHAPTER VIII: **Programme for the Graduates**

29. This programme will be of one year only and will have the following parts:
- A. Theory of Education
 - B. Practice of Education
 - C. Crafts
 - D. Art and Music: Recreational Activities
 - E. Community Life and Community Service activities including Health and Physical Education
 - F. Specialisation: Additional Optional
- 30 (a) Theory of Education will have the following five papers:
- (i) Principles of Education and Current Problems of Education
 - (ii) Educational Psychology and General Methods of Instruction
 - (iii) School Organisation and Administration
 - (iv) & (v) Special Methods of Teaching any two school subjects: Mother Tongue/Regional Language, English, Mathematics, Science, History, Geography, Social Studies. (Other subjects of the Elementary School may be added).
- 30 (b) Crafts—two: one at main and the other at subsidiary level; or both at subsidiary level.
- 30 (c) For details under B, D & E refer to Chap. VI & VII above.
31. Specialisation. One of the following:
- (i) Social Education
 - (ii) Educational Guidance and Counselling
 - (iii) Measurement and Evaluation in Education
 - (iv) Elementary Teacher Education
 - (v) Elementary School Administration and Supervision
32. The distribution of marks will be as follows:
- | | | |
|--|-----|--------|
| A. Theory of Education | 500 | |
| B. Practice of Education | 200 | |
| C. Crafts | 100 | |
| D. Art and Music: Recreational Activities | 100 | |
| E. Community Life and Community Service etc. | 100 | |
| F. Additional Optional | 100 | |
| | | } 1000 |

CHAPTER IX: **Evaluation of Elementary Teacher Education Programme**

33. Examination system, the Committee feels, is not attuned to the objectives of the programme.

34. At present internal and external assessment is combined.

35. Theory papers may continue to be externally assessed but about 20% marks may be reserved for sessional work and internal assessment. This may in future be raised to 50%.

36. Internal assessment should be arrived at on the basis of the year's work and should periodically be discussed at staff meetings and cumulative records maintained.

37. The external examination should be reformed to obviate cramming. The ability to understand and interpret should also be tested along with information.

38. Internal and external assessment should not be combined but should be shown separately in the result or scaling procedures be adopted.

39. Practice of Teaching should be internally assessed but there should be a Co-ordinating Board for standardisation of the assessment and for ensuring that it is made objectively and scientifically.

40. Evaluation in Craft, Art, Music etc. should be internal and periodic. Records should be regularly maintained.

41. Community Life and Community Service Activities etc. should also be internally assessed through observation of participation and behaviour. This too should be periodic and discussed in staff meetings.

42. Every institution should use various new and old techniques according to the objectives. New or old is not sacrosanct, but the serviceability of the technique.

CHAPTER X: **In-service Education**

43. Education is a continuous process; it is, therefore, essential to provide facilities and an environment in which the teacher will find new significance and new understanding, and wherein he will develop new insight into his work and programme.

44. Any good in-service programme should be developmental in nature and should also be designed to:

- (i) Reconstruct the educational programme and the curriculum

- (ii) Undertake careful and systematic study of the pupil's home and community
- (iii) Provide new learning material, new procedures and new techniques of evaluation
- (iv) Encourage experimentation
- (v) Help teachers to become careful students of children
- (vi) Acquaint teachers with educational research
- (vii) Help teachers to formulate new objectives of education
- (viii) Release teachers from thinking within the limits
- (ix) Encourage teachers to participate in socially significant activities
- (x) Foster growth and improvement of all social agencies in the community .

45. In-service education should include provision for general education, study in depth in the field of specialisation as well as professional education.

46. The problem of in-service education can be broken into the following channels:

- (i) Professional growth through in-service programme;
- (ii) Provision of facilities for improvement of academic and professional qualifications;
- (iii) Training programmes for in-service training of untrained teachers;
- (iv) Retraining of teachers in areas like Basic Education.

47. The provision of short in-service programmes is rather a new innovation in the field of elementary education in India. The purpose should not be a mere repetition of the training college courses but should mean breaking new grounds in content, organisation, teaching and evaluation processes.

48. The following areas are suggested in the Indian scene:

- (i) Preparation of the teacher to face new problems in syllabus and techniques;
- (ii) Techniques of multiple class teaching and organisation;
- (iii) Latest developments in Child Psychology;
- (iv) The latest techniques in audio-visual aids;
- (v) Items like evaluation, guidance, school community relationship etc.; and
- (vi) The latest development in the subject matter areas.

49. Properly planned and organised staff meetings can provide sufficient scope for professional growth. The main function of a staff meeting should be to provide opportunities for planning school programmes, for planning and conducting action research and experiments to improve school practices.

50. One of the main tasks of the teachers' organisations should be to help in the professional growth of their members. After independence different categories of teachers have combined to form separate associations. But the elementary school teachers have so far remained neglected. The recently formed All-India Primary Teachers Association has not included in-service education of teachers as a part of its programme. The elementary teachers should therefore organise themselves into regional and subject associations to pay attention to their professional growth.

51. There is a great demand amongst teachers for improving both their academic and professional qualifications. Many Indian Universities and Education Boards also provide facilities to teachers permitting them to appear as private candidates for academic courses. Teachers should avail of such facilities.

52. Special attempts may be made to organise Summer Courses in India as is the practice in the U.S.A. These will provide opportunities to teachers to improve their qualifications. Sufficient care has to be taken to see that the teachers acquire higher qualifications in their own field.

53. Special measures have to be devised to clear the backlog of a large army of untrained teachers. The Committee agrees with the recommendation of the Study Group on the Training of Elementary Teachers in India (1962), which suggested:

- (i) Training of teachers above 35 having 5 to 10 years experience to be undertaken through short term in-service courses.
- (ii) For teachers below 35 having put in 5 to 10 years of service, the training should be of one year.
- (iii) For term training courses for teachers who have put in less than 5 years of service and who are below 35.

54. The Committee recommends that Evening and Vacation Courses should be organised regularly in the existing teacher education institutions.

55. Early steps should be taken for organising Correspondence Courses for elementary teachers on the lines suggested by the Study Group on Correspondence Courses in Training Colleges (October, 1964).

56. Certificates should be awarded to teachers, undergoing a regular in-service education programme of a comprehensive nature.

57. In order to involve all the teachers in some programme or the other, it will not be desirable to depend on training institutions alone. The inspectorate, the professional organisations and the school itself will have to share the responsibility.

58. The Inspector can help by arranging programmes for his area as well as by so orientating his own work that it helps the teachers grow professionally.

CHAPTER XI: **The Professional Preparation of Teacher Educators and Educational Administrators**

59. Supervisors of elementary schools and instructors at elementary teachers' institutions should be at least second class university graduates with necessary professional training.

60. In view of the fact that the teacher educators and administrators at the elementary stage have no suitable pre-service education, suitable professional courses should be framed for them.

61. **Pre-Service Education**

- (a) The courses for pre-service education should pay attention to two aspects: (1) academic background and (2) professional preparation.
- (b) A post-graduate diploma in education or an M.Ed. course of a year's duration is urgently needed for this purpose with bias towards elementary education.
- (c) Candidates, who have taken the B.Ed. degree or an equivalent diploma, may be admitted to the proposed course.
- (d) The programme drawn up by the Working Group on Elementary Teacher Educators and Supervisors set up by the NCERT and All-India Association of Teacher Education, for such a course is approved by the Committee.
- (e) Every institution, proposing to run such a course should at least have: (1) a post-graduate department (2) an elementary teachers' institution and (3) a demonstration elementary school.
- (f) Early steps should be taken for the institution of such a course by universities.

62. Regarding in-service education, the Committee recommends:

- (a) All supervisors and teacher educators for the elementary stage should undergo the proposed M.Ed. or post-graduate diploma course in education in future.

- (b) It should be obligatory on the part of all supervisors and teacher educators to go through a refresher course at least once in five years.
 - (c) Provision should be made for an exchange of personnel not only within the State but also on inter-State basis.
63. (1) The salary scales and service conditions including the status of supervisors and teacher educators for the elementary stage should be not less attractive than those of the staff working at higher secondary or intermediate stage.
- (2) The personnel of the above category should have some experience of elementary education prior to their appointment either as supervisors for the elementary stage or as instructors in an elementary teacher institution.

CHAPTER XII: A Teacher Training Institution of Tomorrow

64. The major function of a teacher education institution of tomorrow will be to educate prospective teachers in such a way that they look at the society with an integrated outlook and their participation in community life is motivated towards creating new cultural values in the daily business of life, and this can be done when the institution itself looks at the individual teacher as an integrated personality.

65. A training institution of tomorrow is to be engaged in considerable research work as part of its normal routine duties. The theory has to go through a practical test in any scientific experimentation.

66. A teacher education institution must have adequate facilities in respect of building, staff, communication and transport, accommodation, facilities for financial drawals, capacity of the local market to supply commodities, medical aid and availability of pure drinking water, and electric power. It should have hostels for all students and quarters for the staff.

The majority of teacher training institutions should be set up in rural areas. It may be set up within a few miles of a small subdivisional town, preferably in the vicinity of a Block Development Office.

67. Regarding area, it is recommended that in an institution where kitchen gardening and agriculture is one of the basic crafts, the total area should be at least 10 acres. The institution proper will have the following three sections:

- | | | |
|--------------------------|---|-----------------------------|
| (1) Administrative Block | — | 22 rooms |
| (2) Tuitional Block | — | 15 rooms |
| (3) Craft Section | — | 6 sheds (as many as crafts) |

68. Regarding hostel building the dormitory system should not continue any longer. Instead there should be four seated rooms with 50 sq. ft. of floor space per student teacher. Besides, the hostel will have kitchen, dining hall, store, common room, doctor's room. Safai store and superintendent's room. There should also be residential quarters for principal, lecturers and other members of the staff.

69. The institution should have a well-equipped library with carefully selected books on the basis of at least ten volumes for every trainee exclusive of text-books.

70. Every teacher education institution should have a model school attached to it.

71. Teacher educators should be thoroughly familiar with the theory and practice and problems of elementary education with experience of either teaching in an elementary school or of supervising lessons imparted in elementary classes. They should have specific training for elementary education. The teacher-pupil ratio should be 1:10 excluding craft instructors or other specialist teachers.

72. Lecture method should be judiciously applied along with other methods and techniques which are summed up as follows:—

- (a) Class lectures reinforced by discussion, written assignment and consolidatory self-study.
- (b) Independent library work.
- (c) Organisation of tutorial classes in small groups.
- (d) Giving assignment to each small group on some selected key topics of the syllabi.
- (e) Organisation of seminars and symposia.
- (f) Making an integrated approach to theory and practice.
- (g) Total planning of work evolved in the Staff Council of the institution.
- (h) Adequate emphasis on demonstration lessons in real practice.
- (i) Practical craft work and community activities are to be conducted in accordance with a carefully laid out plan.
- (j) Teacher educators should always explore the possibility of making use of audio-visual aids.

CHAPTER XIII: **Administrative Problems**

Planning

73. It is very necessary that every State Department of Education prepares its master plan of teacher education. It should make an estimate of the total number of elementary teachers needed during the fourth and subsequent plans, the training facilities existing at present, how the present institutions can be developed and expanded, where and in what form new institutions should be opened, and how elementary teacher training schools can be interlinked with other types of teacher education institutions.

74. On the basis of the State plans, the Indian Ministry of Education can prepare the master plan.

75. In expanding training facilities, the first step should be to increase the intake in each of the existing institutions. It is only after this possibility has been examined that establishment of new institutions should be explored.

76. New institutions should be established in rural and backward areas.

77. Wherever practical, the possibility of organizing comprehensive teacher training institutions should be explored.

Finances

78. Any developmental plan of education will involve an expenditure of large sums of money. This is applicable in a great sense in the case of professional preparation of teachers, since we hold that all teacher education should be free and that the entire cost should be borne by the Government—Centre and State. Their respective roles need to be defined properly.

79. Considering the vital importance of teacher education and since it is professional education, it is recommended that the Government of India should assume greater responsibility for teacher education. So far as finances are concerned, it should:

1. bear all non-recurring expenditure on the development of existing institutions and establishment of new institutions;
2. cover the entire expenditure on stipends and salaries of trainees;
3. award suitable block grants for the improvement of library, laboratory, furniture and equipment.

80. On the other hand, the State Government should meet the entire expenditure on the instructional and administrative staff. It should further

spend definite sums of money per year on items like equipment, laboratory, library, furniture and other allied items.

81. We hold that teacher education should be free preferably for those persons, who agree to serve as teachers in the State for a period of five years after their training and the State Government should make good the loss of fee-income to the management of the training institution concerned. While the teachers in service should draw their full salary, every fresh trainee should draw a stipend of Rs. 50/- p.m. during his period of training.

The National Council and State Council of Teacher Education

82. With the rapid development of teacher education in the country, the need for establishing in each State a statutory body to be called the State Council of Teacher Education is urgent. These Councils should be further affiliated to a National Council for Teacher Education. Early steps should be taken for the establishment of these bodies, which should have the same functions as out-lined by the Baroda Report and the Study Group on the Training of Elementary Teachers in India.

83. Pending the establishment of State Councils of Teacher Education, the entire programme of teacher education of a State should be entrusted to an independent Deputy Director. Besides other duties, he should arrange for annual inspection of teacher training institutions. This can be carried out by panels of experts—officials and non-officials.

The State Institutes of Education

84. One of the major responsibilities of every State Institute of Education will be to knit together different elementary teacher training institutions within the State into one common fraternity and to attend to their qualitative improvement. For this purpose the SIEs should conduct a Survey of existing facilities and requirements of each institution and submit recommendations to the Director of Education for action.

85. Every Institute should further develop designs of building for training institutions with a view to keep the cost of construction at the minimum. It should further draw up lists of essential equipment and library books.

Universities and Elementary Teacher Education

86. While in other advanced countries the universities have given a new shape to elementary teacher training the Indian universities have kept themselves aloof from elementary teacher education programmes.

87. Since Matriculation pass will be the minimum qualification for admission to an elementary teacher institution it will be possible for the universities to give recognition to some of these institutions.

88. University Department of Education should have an Elementary Teacher Education Unit. It should conduct experiments and researches on the problems of elementary teaching and should inspire and guide other institutions of elementary teacher education.

Selection of Inspectors and Teacher Educators for Elementary Education

89. During our visit to different parts of the country, we observed that the elementary teacher institutions are manned by persons of mediocre ability and that the inspectors of elementary schools are not what they should be. Three things are necessary for improving the existing situation:

- (1) All fresh lecturers of elementary teacher institutions and inspectors of elementary schools should undergo a year's post-graduate training in Elementary Education after their B.Ed. training.
- (2) Existing senior officers of the above category and others who may be promoted to shoulder the above responsibility should undergo a training course of three months duration specifically designed for the purpose.
- (3) It is further suggested that a principal or an instructor of a government training school should be continued there for a minimum period of five years.

Problems of Elementary Teacher Training Institutions

90. *Admission:* The majority of elementary training institutions have kept themselves aloof from the main currents of elementary education. This is not desirable. They should keep themselves in constant touch with not only elementary schools but also with the authorities administering them.

91. There are no set procedures of admission of candidates in training institutions. Every State Department of Education should lay down the admission policy quite definitely. The selection of candidates should be entrusted to a Committee consisting of the head of the institution, a member of the State Department of education and one or two educational experts nominated by the Department. Selection should be based on: (1) the previous school record; (2) results obtained by the candidate on an aptitude test specially designed for the purpose, and (3) interview by the

Committee. Twenty-five per cent of the seats may be reserved for ladies and candidates of backward communities. The minimum age for admission should be sixteen.

92. *Wastage:* It is found that about twenty per cent of the candidates fail in the final examination. One of the desirable steps for reducing the wastage will be to stop the present practice of permitting a trainee to join the institution at any time of the academic year. All candidates should join a teacher education institution within a fortnight of the commencement of the academic year.

93. It is also suggested that the number of working days in an academic year be increased to 250 days in all elementary teacher institutions.

94. We further hold that the work load of teacher educators should be reduced and that would also help to reduce wastage.

95. *Size:* Institution should be large to benefit from better equipment, larger staff etc. But difficulty of practising schools in rural setting is a limiting factor. Optimum number of students in a two-year institution should be 160 to 200. To meet the difficulty mentioned earlier these institutions can prepare besides elementary teachers, supervisors, pre-primary teachers and specialist teachers in Craft, English, Hindi, etc.

96. *Inspection:* Every State has its own individual policy regarding the inspection of its elementary teacher training institutions.

97. One of the main functions of the proposed State Councils of Teacher Education will be "to arrange for the inspection and supervision of the training institutions recognised by it". This can be carried out by panels of experts—officials and non-officials.

Production of Literature

98. An immediate task before the country is the production of guide-books for teacher educators and reading materials in Indian languages for the trainee and even teachers in schools on pedagogic subjects suiting Indian conditions. This responsibility can be entrusted to the National Council of Educational Research & Training, the State Institutes of Education and University Departments of Education.

99. *Research:* Elementary teacher education institutions are not expected to do research of a high academic type. They should however, concentrate their attention on the solution of day-to-day problems of teaching and learning.

We must not bring our Report to a close without once again expressing our gratitude to all those individuals, institutions and departments of education without whose cooperation the task would not have been completed. In the end we would also like to thank the officers and the staff of the Department of Teacher Education, National Council of Educational Research & Training who offered us their skilled assistance, at times even without regard for their own convenience:

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Radhakrishna
S. B. Adaval
H. B. Majumder
V. S. Mathur
P. K. Roy
Salamatullah
K. B. Tergaonkar
J. C. Banerjee
B. N. Pandey *Secretary*

APPENDIX I

Questionnaire/Interview Schedule

for Teachers and Administrators

QUESTIONNAIRE/INTERVIEW Schedule framed by the Syllabi Committee set up by the National Council of Educational Research and Training to evolve a syllabus for Elementary Teacher Training in the country.

Aims and Objectives

1. What are the different types of courses for training primary teachers in your State?
2. What are the aims and objectives of each type of course of your State Department of education?
3. Are these aims and objectives in accordance with the system of elementary education?
4. What is the teacher of elementary school expected to do in relation to: (a) school, (b) community.
5. Keeping in view the above, what should be the aims and objectives of a teacher training programme of each type:
 - (a)
 - (b)
 - (c)
 - (d)

Admission, Duration of Training etc.

6. What is the minimum qualification for admission to each course ?
 - (a)
 - (b)
 - (c)
 - (d)

7. What is the duration of existing course/courses of training?
 - (a)
 - (b)
 - (c)
 - (d)

8. Do you think this period is sufficient to achieve the predetermined objectives? If not, please suggest the exact duration of a training course?

9. What is your opinion about the following three types of courses in elementary schools?
 - (a) Two year post-middle
 - (b) Two year post-matric
 - (c) One year post-B.A.

10. Is it desirable to organise emergency training courses? Give reasons (why or why not)?

11. If so, what should be the main purposes of such a course?

12.
 - (a) What in your opinion should be the minimum number of working days in
 - Two year course
 - One year course
 - (b) What is the present position of
 - Two year course
 - One year course?

13. What is the number of applicants?
 - (a)
 - (b)
 - (c)
 - (d)

14. What is the number admitted?
 - (a)
 - (b)
 - (c)
 - (d)

15. What is the procedure of selection? Are you satisfied with the present situation? If not, what are your suggestions?
16. What qualities and specific abilities are considered important in giving admission?
17. Are students from Basic schools given any preference? Should such students from Basic schools be given preference?
18. What are other considerations that are given weight? (Underline the correct factors).
 - (a) Women
 - (b) Scheduled castes or communities
 - (c) Proficiency in sports
 - (d) Backward classes
 - (e) Any other factors.
19. What should be the age limit, if any, for candidates? Specify with reasons.

Curriculum and Programme

Give your reactions for the three types of courses separately:

- (a) 2 years after 8 years schooling
- (b) 2 years after 10/12 years schooling
- (c) 1 year after graduation.

[If the description does not fit the situation, indicate the course on top of a column.]

20. A. How many theory papers are there?
- B. What crafts are taught?
- C. What emphasis is given on:

Percentage in evaluation.	Percentage in time allotted

- (a) Theory
- (b) Crafts—major and subsidiary
- (c) Teaching practice and classroom observations

- (d) Community life activities
- (e) Content of subject matter
- (f) Child study
- (g) Community service/welfare activities
- (h) Miscellaneous activities

D. What should be the relative weightage in respect of the following:

Maximum Marks	Time Allowed

- (a) Theory and practice of education
- (b) Methodology of elementary school subjects
- (c) Content of elementary school subjects
- (d) Crafts and activities
- (e) Community life activities
- (f) Student teaching or practice teaching
- (g) Health education
- (h) Physical education
- (i) Any other subject/area

21. Are you satisfied with the present curriculum? What essential content has not been included? What parts can be dispensed with?
22. Would you like to have the course designed in terms of units rather than in terms of papers or subjects and have integrated approach?
23. How far is the theory course related to practical work and observation? Very much, much, a little, not at all. (Use one of these terms in answering.)

24. (i) Should the following subjects form an integral part of the curriculum?
- (a) Health education
 - (b) Physical education
 - (c) Music
 - (d) Art
 - (e) Principles and Practices of Community Development.
 - (f) Home crafts
 - (g) Second Indian language
- (ii) Should they also be evaluated?
25. Are you in favour of trainees specializing in a particular field of education in the training institutions like nursery education, music, art, physical education, cultural activities? If so, please indicate some areas of specialization.
26. What is the minimum number of crafts that a trainee should learn? Are you in favour of introducing many elective crafts in an institution?
27. Can we do away with general methods of teaching by detailed study of methodology of teaching different school subjects?
28. Is it necessary to have a separate paper on methodology of each school subject?
29. What can we do to emphasize an integrated approach in instruction?
30. Are you in favour of teaching methodology in relation to content of school subjects or in isolation?
31. Should content in general science and its methodology be specially emphasised in training institutions?
32. Should elementary teachers training programme have two distinct programmes of specialisation; namely
- (a) Programme for classes I to V
 - (b) Programme for classes VI to VIII
33. Should there be a theory paper in crafts?
34. Are you in favour of including the following subjects in the course?
- (a) Educational Sociology
 - (b) Evaluation and Measurement
 - (c) Child development and Child Study

- (d) Problems of Indian Education
 - (e) History of Education
 - (f) Great Educators.
35. How many periods are spent in:
 - (a) Practice Teaching
 - (b) Observation of Teaching
 - (c) Practical work with children
 - (d) Any other item.
 36. What are your suggestions for further improvement?
 37. Do the trainees have practice in correlated lessons? If so, what time is devoted to it?
 38. Are you in favour of prescribing a minimum number of lessons (correlated and isolated)?
 39. Does your practice teaching programme give the trainees adequate and varied experiences of basic school teaching?

Evaluation

40. Should evaluation be external/internal or both?
41. How much weightage should be given to external and internal assessments in theory papers/other subjects? Which subjects should be examined internally and which externally?
42. Should practical work and craft work be assessed internally or externally?
43. How should practical teaching be examined?
44. Is it essential to evaluate the community work programme? If so, how can this assessment be conducted?
Should there be group/individual assessment in community work?

Staff of Training Colleges

45. What should be the different designations and qualifications of teacher educators? What should be the staff pattern? Should all staff have some experience of crafts and education through crafts?
46. What should be the qualifications of craft teachers?
47. Should craft instructors be trained in education as well?

48. What should be the teacher-pupil ratio?
49. What should be desirable work load of a teacher educator?
50. How should a teacher educator's work load be measured? What weightage would you give to supervisory work, actual teaching work and participation in co-curricular or community life activities?

Questionnaire/Interview Schedule

(For Laymen)

Questionnaire/Interview Schedule framed by the Syllabi Committee set up by the National Council of Educational Research and Training to evolve a Syllabus for Elementary Teacher Training in the country.

Aims and Objectives

1. What are your expectations of a trained elementary school teacher?
2. What should be the aims and objectives of a training programme?

Duration

3. What is the duration of different teacher training courses at the under-graduate level in your State?
 - (a) Post Middle
 - (b) Post Matric
 - (c) Any other.
4. Do you think this period of training is enough to produce efficient teachers?
 - (a)
 - (b)
 - (c)
5. If not, what should be the duration of a training course?
 - (a)
 - (b)
 - (c)

Selection and Admission

6. What should be the minimum requirements of admission to undergraduate teacher training in your State?
 - (a) Physical standards
 - (b) Educational qualifications
7. Under what conditions should these minimum requirements be relaxed?
8. What should be the procedure of selection?
9. Should the courses of training for elementary school teachers be the same for teachers of all types and grades of elementary schools:
 - (a) Rural
 - (b) Urban
 - (c) Primary (1-5)
 - (d) Elementary (1-8)
10. Should a training college be:
 - (a) Residential
 - (b) Non-residential
 - (c) Mixed

Contents

11. What subjects should be taught to the trainees?
12. What should be the contents of a training course?
13. Does the participation in co-curricular activities such as the following help the teacher training programme?
 - (a) Dramas
 - (b) Debates
 - (c) Educational tours
 - (d) Inter-school competitions
 - (e) Community surveys
 - (f) Adult education
 - (g) Village uplift work
 - (h) Any other

14. Do you want to have class teachers or subject teachers in elementary school/classes?
15. Do you think subject matter content should be included in a training programme?
16. How many crafts should be taught to each trainee?
17. What crafts should be taught to them?
18. What help can a community give in teaching crafts?
19. Can a community help a training-college in producing good teachers?
20. If so, suggest ways and means.
21. Is it desirable to teach academic subjects through:
 - (a) Craft activities
 - (b) Other activities
22. Do you think that the practice teaching programme is useful for preparing teachers for regular work?
23. What activities should be included to give a teacher experience of community living?

Evaluation

24. Should character and personality be kept in view in final assessment?
25. What qualities should a teacher-educator have?
26. How can the community help in organizing library and other co-curricular activities?
27. Should physical training instructors, art teachers and music teachers of a training college be trained in education as well?
28. Should teacher educators of pedagogic and school subjects be trained in crafts as well?

APPENDIX II

List of the Interviewees

ASSAM

1. Shri L. N. Goswami,
Hony. Director,
Extension Services Centre,
KOKRAJAHAR,
Dist. Goalpara.
2. Shri Charkrapani Barua,
Co-ordinator,
Extension Services Centre,
KOKRAJAHAR,
Dist. Goalpara.
3. Shri P. C. Sharma,
Hony. Director,
Extension Services Centre,
MARIGAON,
Dist. Nowagong.
4. Shri M. K. Mahanta,
Co-ordinator,
Extension Services Centre,
MARIGAON,
Dist. Nowagong.
5. Shri P. Srutikar,
Principal Special Officer,
(Basic Education),
Directorate of Public
Instruction,
SHILLONG.
6. Shri T. K. Sharma,
Rangia Basic Trg. Centre,
RANGIA,
Dist. Kamrup.

7. Smt. E. N. Shullai,
Assistant Director of Public
Instruction,
Chapel Road,
SHILLONG.

ANDHRA PRADESH

8. Shri V. Rama Chandran,
Dy. Director for Elementary
Education, Directorate of
Public Instruction,
HYDERABAD.
9. Shri K. S. Acharlu,
C/o Shri Chudamani,
3-6-735, Himayatnagar,
HYDERABAD.
10. Shri G. Rama Krishnayya,
Headmaster,
Govt. Basic Trg. School.
RAYACHOTY,
Dist. Cuddapah.
11. Shri B. Suryanarayanamurthy,
Co-ordinator,
Extension Services Centre,
Govt. Basic Trg. School,
Khairatabad,
HYDERABAD.
12. Shri K. Satyanarayana,
Co-ordinator,
Govt. Basic Trg. School,
RAYCHOTI,
Dist. Cuddapah.

BIHAR

13. Shri Sukhadeo Prasad,
Hony. Director,
Teachers Trg. School,
CHIRI, Ranchi.

14. Shri Sheo Bachan Ram,
Co-ordinator,
Teachers Trg. School,
CHIRI, Ranchi.

15. Shri H. N. Thakur,
Dy. Director of Education,
(Basic Trg.)
Directorate of Public Instruction,
PATNA.

16. Shri Dwarika Singh,
Director,
State Institute of Education,
PATNA.

17. Shri A. Jabbar,
Principal,
Teachers Trg. School,
Bikram, PATNA.

GUJARAT

18. Shri I. U. Vasavada,
Principal,
State Institute of Education,
AHMEDABAD.

19. Shri R. N. Mehta,
Principal,
Graduates Basic Trg. Centre,
Datar Manzil,
MANGROL.

20. Shri Dhirubhai Patel,
Headmaster,
Basic School,
SURAT.

21. Shri Manganbhai Oza,
Principal,
M. A. Prathnik Shikashak,
Adhyapan Mandir,
ANAND, Dist. Kaira.

JAMMU & KASHMIR

22. Shri Dina Nath Muju,
Headmaster,
Teachers Trg. School,
SRINAGAR.

23. Shri Makhan Lal Misri,
Co-ordinator,
Teachers Trg. School,
SRINAGAR.

24. Shri Nur-ud-din,
Basic Education Supervisor,
Directorate, of Education,
SRINAGAR.

25. Smt. S. Z. Ahmad,
Principal,
Teachers Trg. School,
SRINAGAR.

26. Shri Raghunath Matoo,
Karan Nagar,
SRINAGAR.

KERALA

27. Shri V. K. Balachandran,
Teacher,
Tharagan U.P. School,
ANGADIPURAM, Palaghat.

28. Shri K. J. Chakkoru,
Headmaster,
Govt. Trg. School,
RAMA VARMAPURAM.
29. Shri M. Ramakrishnan Nair,
Hony. Director,
Govt. Basic Trg. School,
ATTINGAL.
30. Shri V. Velappan Nair,
Co-ordinator,
Basic Trg. School,
ATTINGAL.
31. Shri P. R. Jaya Kumar,
Co-ordinator,
Govt. Trg. Institution,
RAMAVARMAPURAM.
- MADHYA PRADESH**
32. Shri P. N. Rusia,
Principal,
Govt. Basic Trg. College,
KUNDESHWAR.
33. Shri P. S. Shrivastava,
Co-ordinator,
Extension Services Centre,
KUNDESHWAR.
34. Shri K. C. Jaiswal,
M.L.A.,
BILASPUR.
35. Shri G. C. Saksena,
Extension Services Centre,
JAHANGIRABAD.
36. Shri D. R. Sahu,
Headmaster,
Govt. Sr. Basic Trg. School,
KATGHORA.
- MAHARASHTRA**
37. Dr. G. S. Khair,
Anath Vidyarthi Griha,
POONA.
38. Shri N. D. Patil,
Govt. Basic Trg. College
for Men,
POONA.
39. Smt. Naina Moghe,
Lady Superintendent,
Training College for Women,
HINGANE,
40. Smt. Sharda R. Dhawale,
Principal,
Govt. Basic Trg. College for
Women,
POONA.
41. Shri K. S. Rokade,
Co-ordinator,
Rural Institute,
AMARAVATI.
42. Shri D. S. Chikermane,
Hony. Director,
Rural Institute,
GARGOTI.
43. Shri M. G. Mali,
Co-ordinator,
Rural Institute,
GARGOTI.

MADRAS

44. Shri S. Rajan,
24, Western Extension,
Co-operative Colony,
NUNGANALLUM,
Madras.
45. Shri K. Muniandi,
Principal,
Khadi Mahavidyalya,
Gandhi Niketan Ashram,
T. KALLUPATTI,
Dist. Madurai.
46. Shri R. Shunmaghum,
Principal,
Govt. P. G. Basic Trg. College,
ORATHANAD,
Dist. Thanjavur.
51. Km. K. T. Sarojamma,
Asstt. Mistress,
Upgraded, P.G.S. Mandipet,
MYSORE.
52. Km. R. S. Sarojamma,
Assistant Mistress,
Belvadi N.T.M.S.
MYSORE TALUKA.
53. Km. M. Manjula,
K. R. Mills Colony,
Basic Depot,
Primary Boys School,
MYSORE TALUKA.
54. Shri G. H. Channe Gowda,
Headmaster,
N.T.M.S. Markuli,
HASSAN TALUKA.

MYSORE

47. Shri M. G. Handral,
Principal,
C. B. Trg. College,
DHARWAR.
48. Shri T. V. Thimmagowda,
Jt. Director of Public Instruc-
tion, BANGALORE.
49. Shri K. B. Aiyappa,
I/C Principal,
B.T. Institute,
KORDIGE (Coorg.)
50. Km. S. Helen Victoria,
Headmistress,
Upgraded P.G.S. Mandipet,
MYSORE.
55. Shri C. Dasegowda,
Assistant Master,
N.T.M.S. Belathun,
H.D. KOTE TALUKA.
56. Smt. M. V. Nagamma,
Headmistress,
P.B.S. Old Kesare,
MYSORE TALUKA.
57. Shri Kenith U.C. Gowda,
Headmaster,
U.I.P.B.S. Doddallanade,
HUSSAN TALUKA.
58. Shri M. Siddaih,
Asstt. Master,
Govt. Middle School,
Hiriyoor,
I, NARSIPUR TALUKA.

59. Shri S. Siddaiah,
Asstt. Master,
N.T.M.S. Geragamtally,
GERANDUR.
60. Shri P.S. Nagashayana Murthy,
Teacher,
Upgraded P.B. School,
Varuna, MYSORE TALUKA.
61. Shri B. S. Padmamma,
Upgraded Cement Block School,
MYSORE.
62. Shri Violet Ruttu,
Asstt. Master,
Upgraded Primary School,
MYSORE.
63. Shri S. N. Narayana,
Headmaster,
Body Guard Lines,
Basic Primary School,
MYSORE.
64. Shri R. Venkatesha Sharma,
Asstt. Master,
P.B.S., KIRALU.
65. Shri K. R. Seetharama Rao,
Headmaster,
P.B.S., Yandhally,
Verma Hobli,
MYSORE TALUKA.
66. Shri B. R. Sree Kanta Murthy,
Headmaster,
N.T.M.S. Yelawal,
MYSORE TALUKA.
67. Shri V. P. Basti,
Co-ordinator,
Govt. Trg. College
for Men,
DHARWAR.
68. Shri K. B. Tergaonkar,
Hony. Director,
Sri Shivarathreswara
Basic Trg. College,
MYSORE.
69. Shri D. S. Devraj Murthy,
Co-ordinator,
S.S. Basic Trg. College,
MYSORE.
70. Shri G. S. Gokarn,
Hony. Director,
Govt. Basic Trg. College
for Men,
DHARWAR.
71. Shri D. S. Devrajamurthy,
Co-ordinator,
Sri Shivarathneswara Basic
Trg. College,
MYSORE.
- ORISSA**
72. Shri Basudev Dhar,
Co-ordinator,
Extension Services Centre,
CHLENDIPADA.
73. Shri R. S. Senapati,
Dy. Director of Public
Instruction,
CUTTACK.

74. Shri S. C. Mahapatra,
Retd. Inspector of Schools,
Directorate of Public
Instruction, CUTTACK.

75. Shri N. Naik,
S.O.-cum-Dy. Secretary to
Government,
Education Department,
BHUBANESWAR.

76. Shri Sadasiva Dehuri,
Headmaster,
E.T. School,
CHENDIPADA.

77. Shri Markanda Rath,
Retd. D.I. Schools,
BHAVANI PATNA,
Dist. Kalahandi.

78. Shri C. S. Pratihari,
Hony. Director,
Elementary Trg. School,
SALIPUR.

79. Shri D. P. Hota,
Co-ordinator,
Elementary Trg. School,
SALIPUR.

PUNJAB

80. Shri J. M. Dhand,
Headmaster,
Govt. Normal School,
KARNAL.

81. Shri I. S. Grewal,
Hony. Director,
Govt. Basic Trg. Institute,
JAGRAON.

82. Shri M. S. Chaudhuri,
Co-ordinator,
Govt. Basic Trg. Institute,
JAGRAON.

83. Shri V. B. Sharma,
Co-ordinator,
Govt. Normal School,
KARNAL.

84. Shri P. N. Sahai,
Dy. Chief Education Officer
(T.T.),
JULLUNDUR.

85. Shri D. D. Chaudhury,
Asstt. Director of Education,
Office of the D.P.I.,
CHANDIGARH.

86. Shri Dewan Singh,
Headmaster,
Govt. Training School,
NABHA.

RAJASTHAN

87. Shri K. S. Rawat,
Co-ordinator,
Govt. S.T.C. Trg. School,
TONK.

88. Shri B. S. Paliwal,
Hony. Director,
Govt. Basic S.T.C. Trg. School,
GOVERDHANVILAS.

89. Shri G. S. Bhatnagar,
Co-ordinator,
Govt. Basic S.T.C. School,
GOVERDHANVILAS.

90. Shri R. K. Joshi,
Headmaster,
Govt. B.S.T.C. Trg. School,
KISHANGARH,
Dist. Ajmer.
91. Sm. Geeta Bajaj,
Motidoogri,
JAIPUR.
92. Shri R. P. Bhatnagar,
Reader,
Regional College of Education,
AJMER.
93. Shri B. G. Tewari,
Director,
State Institute of Education,
UDAIPUR.
94. Shri R. K. Kaul,
Principal,
Govt. Teachers Trg. College,
Meerasahli, AJMER.
95. Shri S. N. Srivastava,
Principal,
T.T.D., D.A.V. College,
AJMER.
96. Shri N. L. Sharma,
Principal,
Govt. Trg. College,
AJMER.
97. Bhai Yogendar Ject,
Jialal Institute of Education,
AJMER.
98. Shri P. D. Sharma,
Vice-Principal,
Regional College of Education,
AJMER.
99. Shri H. G. Mathur,
Reader,
Regional College of Education,
AJMER.
100. Shri M. I. Sharma,
Lecturer,
Jialal Institute of Education,
AJMER.
101. Shri D. P. Vijaivergiya,
Hony. Director,
Govt. S.T.C. Trg. School,
TONK.
- UTTAR PRADESH**
102. Shri P. N. Chaturvedi,
Hony. Director,
Basic Trg. College,
AGRA.
103. Shri Banshidhar,
Principal,
Govt. P.G. Basic Trg. College,
VARANASI.
104. Dr. R. K. Singh,
B. R. College,
AGRA.
105. Shri Brij Mohan Kakkar,
Principal,
Inservice Trg. Centre,
Shahganj, AGRA.
- WEST BENGAL**
106. Shri Kirti Lal Shome,
Co-ordinator,
Govt. J.B.T. College,
BANIPUR, P.O. Baigachi.
107. Shri H. Bhattacharjee,
Hony. Director,
Govt. J.B.T. College,
KALANABAGRAM.

108. Shri P. B. Sarmar,
Co-ordinator,
Govt. J.B.T. College,
KALANABAGRAM.
109. Shri K. R. Banerjee,
Deputy Chief Inspector,
Basic Edn.
CALCUTTA.
110. Shri Tara Shankar Ghosh,
Head Teacher,
Bahadurpur Jr. Basic School,
P.O. PRATAL (Burdwan).
111. Shri B. K. Bhattacharya,
Adhakshya,
Shiksha Niketan,
KALANABAGRAM
(Burdwan).
112. Shri Mrityunjoy Bakshi,
Lecturer,
Jr. Basic Trg. College,
BANIPUR, P.O. Baigachi
(24-Parganas).
113. Smt. Sadhana Bhattacharya,
P.O. KALANAVAGRAM,
(Burdwan).
114. Shri Harendranath Roy,
Secretary,
Sangathani,
P.O. DAKSHIN CHHAYTRA,
Dist. 24-Parganas.
115. Smt. Nalini Das,
Principal,
Women's Trg. College,
Hastings House,
CALCUTTA.
116. Dr. D. C. Dasgupta,
Retd. Head, Dept. of Educa-
tion, Gauhati University,
8/35, Fern Road,
Ballyganj, CALCUTTA.
- UNION TERRITORIES—
MANIPUR, TRIPURA,
DELHI, H.P.**
117. Shri N. Nilmani Singh,
Principal,
Basic Trg. College,
IMPHAL (Manipur).
118. Shri Gopal C. Bhattacharyya,
Principal, Basic Trg. College,
AGARTALA (Tripura).
119. Shri Krishna Kant,
Govt. Co-educational Trg.
Institute,
DELHI.
120. Shri H. S. Panwar,
Hony. Director,
Govt. Basic Trg. School,
SOLAN (H.P.).
121. Shri K. Mani Singh,
Co-ordinator,
Extension Services Centre,
IMPHAL, Manipur.
122. Shri P. P. Chakraborty,
Co-ordinator,
P.G. Basic Trg. College,
AGARTALA (Tripura).

APPENDIX III

Courses for Specialisation

(I) CRAFTS*

I (a) Spinning and Weaving—Subsidiary

A. Theory

1. Knowledge of materials

1. Different varieties of cotton and their characteristics.
2. Assessment of yarn and calculation of count and resultant count.
3. Classification of fibres and their special features.
4. Yarn calculation.
5. The sizing agents, their specifications, properties and methods of using.
6. Nature of dyes used for dyeing yarn and the methods of dyeing yarn.

II. Knowledge of tools

1. Nature, specification and correct use of simple tools and equipment used in the craft. (only those which are to be used in the practical work)
2. The method of maintaining these.

III. Pedagogics

1. Place of spinning-weaving in the elementary school curriculum.

* The courses in a few crafts are indicated at three levels *i.e.*, Subsidiary, Main and Specialisation to indicate the level at which specialisation is to start in each craft.

2. Teacher's role in the spinning-weaving practical class.
3. Evaluation of pupils' work and maintenance of records.

B. Practical

1. Spinning on *takli* with the help of prepared slivers by
 - (a) twisting on the ground and winding in the air.
 - (b) twisting on the ground and winding on the ground
2. Spinning on local, kisan or yarvada charkha.
3. Weaving on Newar loom, Asan frame and Shuttle loom.
Only plain weave to be attempted.
4. Finishing on woven cloth.

C. Technical Drawing

1. Drawing sketches of tools, equipment and parts of loom.
2. Drawing of peg plan.
3. Simple designing and colouring on paper.

I (b) Spinning and Weaving—Main

A. Theory

I. Knowledge of materials

1. Different varieties of cotton and their characteristics.
2. Assessment of yarn and calculation of count and resultant count.
3. Classification of fibres and their special features.
4. Yarn calculation.
3. The sizing agents, their properties and methods of use.
6. Nature of dyes used for dyeing yarn and the method of dyeing the yarn.

II. Knowledge of tools

1. Nature, specifications and correct use of tools and equipment used in the craft. (only those which are to be used in the practical work).
2. The method of maintaining these.

III. **Pedagogics**

1. Role of crafts in a scheme of General Education.
2. Trends in the field of craft education with special reference to spinning-weaving.
3. Place of spinning-weaving in the elementary school curriculum.
4. Gradation of spinning-weaving activities.
5. Planning spinning-weaving lessons.
6. Teacher's role in the spinning-weaving practical class.
7. Evaluation of pupil's work and maintenance of records.

B. Practical

1. Cotton picking where facility is available.
2. Collection and storing of cotton.
3. Cleaning of cotton.
4. Ginning by hand and rod and plank.
5. Combing.
6. Carding.
7. Making slivers.
8. Spinning on *takli*—all the eight processes.
9. Fitting the charkha, setting it for work and spinning on local, kisan or yarvada charkha.
10. Repairing the charkha and carding equipment.
11. Weaving plain weave and twill on fly shuttle loom. All the processes concerning dying, warping and filling of bobbins have to be performed.
12. Finishing of woven cloth.

C. Technical Drawing

1. Drawing sketches of tools, equipment and parts of loom.
2. Drawing the peg plan.
3. Simple designing and colouring on paper.
4. Lettering.

D. Preparation of Teaching Aids

1. Black-board practice of sketches and diagrams.
2. Preparation of charts, flannelographs, models and posters related to spinning-weaving.

E. Teaching Practice

Teaching a sufficient number of theoretical and practical types of lessons.

I (c) Spinning and Weaving—Specialization**A. Theory****I. Knowledge of materials**

1. Different varieties of cotton, where they are grown. Necessary conditions for the growth of cotton.
2. A detailed study of the different kinds of fibres and their process of manufacture.
3. A detailed study of the synthetic dyes.

II. Knowledge of tools

1. Working of Jackard, Taper and Dobby.

III. Pedagogics

1. Preparation of instructional materials.
2. Study regarding improved craft practices.

B. Practical

1. Developing further speed in spinning on charkha.
2. Attempting the following weaves
 - (a) Designs in plain weave using coloured yarn, producing stripes and check patterns, using yarns of different counts and different kinds of yarn, by cramming etc.
 - (b) Satin
 - (c) Herringbone
 - (d) Honey comb
 - (e) Huckaback
 - (f) Mock Leno.

C. Technical Drawing

1. Designing of the pattern of weaves.
2. Preparation of peg plan.

II (a) Wood Craft—Subsidiary**A. Theory****I. Knowledge of materials**

1. Characteristics of timbers used in the class. Seasoning and storing of wood.
2. Peculiarities of glues, paints and varnishes. How to apply these.
3. Metal fixtures and fastenings—their use and specifications.

II. Knowledge of tools

1. A knowledge of simple tools used in the wood craft.
2. The parts of these tools and nature of the materials with which these parts are made.
3. Proper method of using the tools.
4. Care and maintenance of the tools.

III. Pedagogics

1. Place of wood craft in the elementary school curriculum.
2. Teachers' role in the wood craft practical class.
3. Evaluation of pupils' work and maintenance of records.

B. Practical

1. Designing of models.
2. Reading of working drawings.
3. Stock calculation.
4. Laying out of work on stock.
5. Selection of the tools and preparing them for work.
6. Making models involving use of the following tools:
Rule; Marking Knite; Try square; Marking gauge; Jack plane; Smoothing plane; Clamping devices, Cross-Out saw;

Rip saw; Fret saw or Coping saw; Rasps and Files; Chisels; Gouges; Hand drill; Screw driver.

The operations will consist of measuring; planning a true surface and square edge; testing with a try square; sawing to a line with cross cut saw and rip saw; cutting irregular shapes with fret saw; shaping with the help of rasps and files; trimming and paring with chisels; grooving with gouges; application of simple joints like butt, mitre, rabbet, dado and half lap, drilling holes and attaching fixtures.

The models will comprise of simple articles like, Name Boards, Ruler, Pirha, Trays, Boxes and Toys.

7. Finishing of the models with the help of paints and varnishes.

C. **Technical Drawing**

1. Drawing of sketches of tools and models.
2. Drawing of isometric view and orthographic projection of models.

(b) **Wood Craft—Main**

A. **Theory**

I. **Knowledge about materials**

1. Characteristics of common timbers of India. How to season and store wood.
2. Peculiarities of glues, paints, varnishes and polishes. How to apply these.
3. Metal fixtures and fastenings—their uses and specifications.

II. **Knowledge about tools**

1. A knowledge of the common tools used in wood craft.
2. The parts of these tools, nature of the materials of which these parts are made of.
3. Proper method of using the tools.
4. Care and maintenance of the tools.

III. **Pedagogics**

1. Role of crafts in a scheme of general education.
2. Trends in the field of Craft Education with special reference to wood craft.

3. Place of wood craft in the elementary school curriculum.
4. Gradation of the wood craft activities.
5. Planning wood craft lessons.
6. Teachers' role in the wood craft practical class.
7. Evaluation of pupils' work and maintenance of records.

B. Practical

1. Designing of models.
2. Reading of the working drawings.
3. Stock calculation and calculation of cost.
4. Laying out work on stock.
5. Selection of the tools and preparing them for work.
6. Making models involving use of the following tools:—
Rule; Marking knife; Try Square; Marking Gauge; Jack Plane; Smoothing Plane; Clamping devices; Cross cut saw; Rip saw; Mortice and Tenon saw; Fret and Coping saw; Key saw; Rasps and Files; Chisels; Gouges; Hand Drills; Brace; Screw Driver.

The operations will comprise of : measuring up to fractions, planing a true surface and square edge; testing with a try square; sawing to a line with cross cut saw, rip saw and mortice and tenon saw; shaping with rasps and files; trimming and paring with chisels; clipping; gouging and inlaying; holding jobs with clamps; making an edge to edge glue joint without and with double lines; preparing and applying glue; clamping up stock; laying out and cutting common structural joints such as butt, mitre, rabbet, dado, half lap and mortice; drilling holes and attaching metal fixtures.

The models may comprise of articles like Bookshelf; Wall Almirah; Nursery furniture; Centre table; Trinket boxes, Easy chairs.

7. Finishing of models by applying paints, varnishes and polishes;
8. Repair and reviving of old furniture.

C. Technical Drawing

1. Drawing of sketches of tools and models.
2. Scale drawing.

3. Drawing isometric view and orthographic projection of models.
4. Simple lettering.

D. **Preparation of visual aids**

1. Black board practice of sketches and diagrams.
2. Preparation of charts, flannelographs, models and posters related to wood craft.

E. **Teaching Practice**

Teaching a sufficient number of theoretical and practical types of lessons.

(c) **Wood Craft--Specialization**

A. **Theory**

I. **Knowledge of materials**

1. Characteristics and methods of manufacturing wood and other synthetic boards.
2. Common diseases in wood and their remedy.

II. **Knowledge of tools**

1. A knowledge of the tools used in the course. Proper way of using and maintaining them.

III. **Pedagogics**

1. Preparation of instructional material.
2. Study regarding improved craft practices.

B. **Practical**

1. Making of models involving use of sliding level: whiting and Carving knives also.

The operations will include cutting bevels and chamfers, application of dove tail joints and veneering, inlay work, carving—incised or chase carving, chip carving in low and bas relief.

The models will belong to the domain of cabinet making and will be articles like office trays, newspaper racks; centre table, dressing table, mirror stand, cupboards etc. Use of different kinds of boards may be made.

2. Finishing of models—the finish should be of high quality.
3. Repair and reviving of old furniture.

C. **Technical Drawing**

1. Drawing of isometric view and orthographic projection of models.
2. Drawing of designs for carving.

III (a) **Metal Craft—Subsidiary**

(*Note*:—This course comprises of sheet metal work, beaten metal work and fitting).

A. **Theory**

I. **Knowledge of materials**

1. Distinction between metals and non-metals.
2. Properties of metals. Iron, Copper, Zinc, Tin, Lead and Silver.
3. Specification of sheet metal, mild steel bars, wires and rivets.

II. **Knowledge of tools**

1. A knowledge of simple tools used in metal craft.
2. Proper methods of using the tools.
3. Care and maintenance of the tools.

III. **Pedagogics**

1. Place of metal craft in the elementary school curriculum.
2. Teachers' role in the metal craft practical class.
3. Evaluation of pupils' work and maintenance of records.

B. **Practical**

I. **Sheet Metal Work**

1. Designing of the models.
2. Setting out—development involving flat surfaces and cylindrical work.
3. Reading sheet metal development drawing.
4. Stock calculation.
5. Selection of tools and preparing them for work.

6. Making models involving use of Straight snips, Curved snips, Bonding bars, Seam set, Hollow punches, Planing hammer; Hide mallet, Soldering iron, Hatchet and straight bit, Soldering stove; Tinman's horse and takes.

The operations will consist of measuring and laying out; cutting straight and curved lines; bending and rounding; applying the following joints—lap seam, corner lap, grooved seam, simple fitted bottom; beading the edge; forming sheet metal; soft soldering; The models may comprise of trays, scoops, takli case, mug.

II. Beaten Metal Work

1. Designing of models.
2. Determining sizes of blanks.
3. Stock calculation.
4. Selection of tools and preparing them for work.
5. Making of models involving use of Snips—straight and curved; Double ended stake, Cow tongue, Musbroom, Round and Doming stakes: Planishing, Hollowing and Raising hammer; Stretching hammer; Pear shaped hammer and Raising mallet, Soldering torch or Blow pipe.

The operations will comprise of setting out; cutting along straight and curved lines; cleaning; hollowing; and raising, seaming, flaring, truing; soldering; planishing.

The models attempted may be like trays, bowls and simple scientific apparatus etc.

III. Fitting

1. Designing the job.
2. Reading of the working drawing.
3. Stock calculation.
4. Selection of tools and preparing them for the job.
5. Making of models involving the use of Rule; Try Square; Chisels; Hack Saw; Files; Drills; rivet set and snap hammers.

The operation will comprise of measuring and testing; cutting; filing; cutting with chisels; shearing; draw filing; drilling; riveting.

The models may comprise of escutchens; callipers; simple garden tools and mild steel bar structures.

C. **Technical Drawing**

1. Drawing of sketches of tools and models.
2. Preparation of developmental drawings.

(b) **Metal Craft —Main**

(*Note*:—This course comprises of Sheet Metal Work, Beaten Metal Work and Fitting).

A. **Theory**

I. **Knowledge of materials**

1. Distinction between Metals of Non-Metals.
2. Properties of metals—Iron, Copper, Zinc, Tin, Lead and Silver.
3. Method of extraction of the above mentioned metals from their ores.
4. Alloys. Ferrous and non-ferrous alloys.
5. Flux.
6. Specification of sheet metal, mild steel bars, wires and rivets.

II. **Knowledge of tools**

1. A knowledge of the tools used in metal craft.
2. The part of these tools, nature of materials with which these parts are made up.
3. Proper method of using the tools.
4. Care and maintenance of tools.

III. **Pedagogics**

1. Role of crafts in a scheme of general education.
2. Trends in the field of craft education with special reference to metal craft.
3. Place of metal craft in the elementary school curriculum.
4. Gradation of metal craft activities.
5. Planning metal craft lessons.

6. Teachers' role in metal craft practical class.
7. Evaluation of pupils' work and maintenance of records.

B. **Practical**

I. **Sheet Metal Work**

1. Designing of the models.
2. Setting out—development involving flat surfaces, cylindrical work and work based on cones.
3. Reading sheet metal development drawings.
4. Stock calculation and calculation of cost.
5. Selection of tools and preparing them for work.
6. Making models involving use of straight snips; curved snips, bending bars, seam set, hollow punches, planing hammer, hide mallet, soldering iron, hatchet and straight bit, soldering iron, tinman's horse and stakes.

The operations will comprise of measuring upto fractions and laying out: cutting straight and curved lines; cutting rings and circles, bending and rounding; applying the following joints—lap seam, flush lap seam, corner lap, grooved seam, simple fitted bottom, flanged bottom, circular folded seam, paned down bottom, knocked up bottom; wiring and beading the edge, forming sheet metal, soft soldering, sweating the joints and brazing; finishing.

The models may comprise of trays, brackets, boxes, scope, takli case, mug, funnels, oil cans, rain gauge etc.

7. Repair of tin sheet articles.

II. **Beaten Metal Work**

1. Designing of models.
2. Determining sizes of blanks.
3. Stock calculation and calculation of cost.
4. Selection of tools and preparing these for work.
5. Making of models involving use of snips, straight and curved; silver smith's anvil; double ended, cow tongue, mushroom, round and doming stacks; planishing hammer, double ended hammer for planishing; raising hammer; stretching hammer; pear shaped hammer; raising mallet and soldering torch or blow pipe.

The operations will comprise of setting out, cutting along straight and curved lines, cleaning, hollowing raising, flaring, truing, soldering, planishing, fixing edge moulding and finishing

The models attempted may be like trays, bowls, small vases, boxes; pots, simple scientific apparatus etc.

III. **Fitting**

1. Designing the job.
2. Reading of the working drawings.
3. Stock calculation and calculation of cost.
4. Selection of tools and preparing them for the job.
5. Making of models involving the use of Rule; Callipers; scriber; Centre punch; Engineers square Hack saw; Files; Chisels; Bench Drills; Revet set and snap, Screw cutting taps and dies.

The operations will comprise of measuring; transforming the measurement, marking out and testing; cutting; filing; cutting with chisels, shearing; draw filing, drilling, reveting, screwing.

Model may comprise of simple tools like Ruler, the Square, Escutcheon Garden tools, Lanterns, Scroll work; simple mild steel bar structures.

C. **Technical Drawing**

1. Geometrical construction problems based on bisection of lines and angles. Construction of triangles and polygons, inscribing and escribing circles in polygons.
2. Drawing sketches of tools and models.
3. Preparing developmental drawings.
4. Orthographic projection drawings.
5. Simple lettering.

D. **Preparation of Visual Aids**

1. Black-board practice of sketches and diagrams.
2. Preparation of charts, flannelographs, models and posters related to metal craft.

E. **Teaching Practice**

Teaching a sufficient number of theoretical and practical lessons in draft.

(c) Metal Craft—Specialization

(*Note:*—This course comprises of Sheet Metal Work, Beaten Metal Work and Fitting. It has been proposed on the presumption that the trainee has the knowledge and skill proposed under the main course).

A. Theory**I. Knowledge of materials**

1. Effect of heat on metals and alloys.
2. Graded solders.
3. Chemical action of flux.

II. Knowledge of tools

1. A knowledge of the tools used in the course. Proper way of using them and maintaining them.

III. Pedagogics

1. Preparation of instructional material.
2. Study regarding improved craft practices.

B. Practical**I. Steel Metal Work**

1. Making of models involving a combination of different basic shapes.
2. Fixing of handles, sockets etc.
3. Making of models out of G.I. sheet of heavier gauge.

II. Beaten Metal Work

1. Making of models involving joining of two or three pieces.
2. Making of hammered boxes of varying difficulty.
3. Finishing the models by different kinds of surface treatment.

III. Fitting

1. Making models involving the use of surface plate, combination set, micrometer, scrapers.
2. The models will involve greater accuracy and perfect fitting.

3. They may comprise of instruments, machine parts, advanced types of garden tools, decorative fittings, metal furniture (in collaboration with welding).

C. **Technical Drawing**

1. Preparing sectional drawing of machine parts.
2. Preparing developmental drawings of models involving a combination of basic shapes.
3. Preparation of blue prints.

IV (a) Book Craft—Subsidiary

A. **Theory**

I. **Knowledge of materials**

1. Specification of paper, straw board, binding cloth and threads used in book-binding.
2. Nature of various adhesives used in book-binding—how to prepare and use them.

II. **Knowledge of tools**

1. A knowledge of the simple tools used in book craft.
2. The parts of these tools and nature of the materials of which these parts are made.
3. Proper method of using the tools.
4. Care and maintenance of the tools.

III. **Pedagogics**

1. Place of book craft in the elementary school curriculum.
2. Teacher's role in the book craft practical classes.
3. Evaluation of pupils' work and maintenance of records.

B. **Practical**

1. Designing of models.
2. Reading of working drawings.
3. Calculation of material.
4. Laying out of work on material.

5. Selection of tools and preparing them for work.
6. Making of models involving the use of the following tools: --
Rule; Set square; Knives; Cutting plate; Scissors; Straw Board Cutter, Safety edge scale; Folder; Stitching frame; Punches, Eyelet fixer; Standing Press. The operations will comprise of measuring; cutting; pasting; fixing of eyelets and press buttons, folding of sheets to form pages; binding of multiple section notebook. The models may include envelopes, paperbags, book jackets, blotting pads, loose-leaf exercise book, album, single and multiple section notebook with soft and stiff covers.

C. Allied Art

1. Drawing sketches of tools and models.
2. Simple geometrical problems involving bisection of lines, angles, construction of triangles and polygons, inscribing and escribing circles in the polygons.
3. Composing of designs suitable for decorating the paper and the cover.
4. Repeating the designs by stenciling, edge stenciling, potato printing.
5. Marbling.

(b) Book Craft --Main

A. Theory

I. Knowledge of materials

1. How paper and straw board are manufactured on the cottage industry basis.
2. Specifications of paper and straw board used in the craft and how to store them.
3. Nature of binding cloth used in book-binding.
4. Specification of threads used in book-binding.
5. The various adhesives used in book-binding --their nature and method of making them.

II. Knowledge of tools

1. A knowledge of the common tools used in book craft.

2. The parts of these tools, nature of the materials with which these parts are made up.
3. Proper method of using the tools.
4. Care and maintenance of tools.

III. **Pedagogics**

1. Role of crafts in a scheme of general education.
2. Trends in the field of craft education with special reference to bookcraft.
3. Place of book craft in the elementary school curriculum.
4. Gradation of book craft activities.
5. Planning book craft lessons.
6. Teachers' role in the book craft practical class.
7. Evaluation of pupils' work and maintenance of records.

B. **Practical**

1. Designing of models.
2. Reading of working drawings.
3. Calculation of material and cost.
4. Laying out work on material.
5. Selection of tools and preparing them for work.
6. Making of models involving use of the following tools. Rule:— Set square, Knives, Cutting plate, Scissors; Straw Board cutter, Safety edge scale; folder; Stitching frame, Backing hammer, Tenon saw; Punches, Eyelet fixer, Nipping press, Trimming press, Standing press, Lying press. The operations will comprise of measuring, cutting, pasting, fixing of eyelets and press buttons, folding of sheets to form pages. Binding of books,— quarter binding, recovery of old books whose sewing is intact, rebinding of books. Decoration of the end papers and cover.

The models may include Envelopes, Paper bags, Book jackets, Zig-zag notebook, Blotting pad, Picture frame, Writing pad, portfolio, stationary cases, magazine covers, single section notebooks with soft and stiff covers, albums, loose leaf exercise books, quarter bound books.

C. **Allied Art**

1. Drawing sketches of tools and models.

2. Simple geometrical problems involving bisection of lines and angles, construction of triangles and polygons, inscribing and escribing circles in the polygons.
3. Composing of designs suitable for decorating the end paper and the cover.
4. Repeating the designs by stencilling, edge stencilling, potato printing, line cut etc.
5. Marbling.

D. **Preparation of teaching aids**

1. Black-board practice of sketches and diagrams.
2. Preparation of charts, flannelographs, models and posters related to Book Craft.

E. **Teaching Practice**

Teaching a sufficient number of theoretical and practical types of lessons.

(c) **Book Craft—Specialization**

Note:—(This course is proposed on the presumption that the trainees have the knowledge and skill proposed under the main course.)

A. **Theory**

I. **Knowledge of materials**

1. The industrial method of manufacturing of paper and straw board.
2. Nature of different varieties of paper of special quality, like wattman, bond etc.
3. Nature of leather and reksin used for binding purposes.
4. Gold leaf used for gold lettering.

II. **Knowledge of tools**

1. Knowledge of tools used in the course. Proper way of using and maintaining them.

III. **Pedagogics**

1. Preparation of instructional material.
2. Study regarding knowledge of craft practices.

B. Practical

Making of models involving the use of leather, reksin and gold lettering. The operations will include gusset making, full leather and reksin binding, and gold lettering.

The models will comprise of portfolios with gusset and full bound books with leather and reksin including gold lettering.

C. Allied Arts

Composing of designs for decorating the paper and covers of books.

2. PHYSICAL EDUCATION**Theory Syllabus**

1. What is Physical Education? Its scope and objectives.
2. The place of Physical Education in the school programmes and its unique contribution to education.
3. Role of play in child's education and its effect on growth and development—Physical, Mental, Social, Age and Sex Characteristics, Theories of Play—The surplus energy theory: Recreation theory, Relaxation theory, Instinct Practice theory, Modified instinct theory, Recapitulation theory, Physiological growth theory, the Catharsis theory and the Social Contact theory.
4. General Methods of Teaching Physical Activities
Exercises—Skills—Story Plays—Team Plays.
Commands—Types of Commands—Formal and informal—1) Vaspal
2) Demonstration, 3) Response—Command—Children—for larger groups, Technique of commanding and leading—Countings, continuous countings, rhythmic counting, counting aloud, use of whistle, use of percussion instrument and music.
Teaching of skills and game—whole, part whole method of teaching skills and games, story plays.
Play ground supervision, safety precautions.
5. Rules and officiating
Knowing of the rules. Duties of various officials, record sheets.
6. The Physical Education lesson, its objectives and preparation; The acquisition of skills; enjoyment and satisfaction; The balanced development of physique; scope for self-expression and for the development of right attitudes.

7. Organisation of Physical Education—Elementary schools; and Middle School. Selection, preparation and care of playground facilities and equipment; purchase of equipment, improvisation of equipment; preparation of time tables; budget and finance, programme of activities.
8. Methods of organising and conducting Tournaments—Group competitions, Intramurals, Inter-School competitions, Sports Meets. Single elimination tournaments (Knock out), League tournaments, Ladder tournaments; Seeding in the tournaments. Organising demonstrations, exhibitions, play days, etc.
9. Evaluation and its teaching:
Pupil achievement; Examples of measurement in Physical efficiency and skills; use of test results; evaluating the results of the programme.

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ACTIVITIES

For developmental exercises and fundamental skills, the syllabus given in the 'Hand book of Physical Education for School boys' brought out by the Ministry of Education, Government of India, may be followed. However representative items from these categories are listed below in the order of increasing difficulty. The teacher-trainees are advised to refer to the bibliography appended to get a clear understanding of the significance and the method of teaching these activities.

MOVEMENT EDUCATION

1. Stretching own body, making own self as small as possible, curling, rolling like a ball.
2. Evicting the limbs, head, or trunk.
3. Running at different paces, running to specified places (far, near, different direction), running in different geometric patterns (circular, straight, zig-zag, diagonal).
4. Running sideways, hopping, skipping, jumping, running with others, sliding.
5. Running while rolling a hoop.
6. Running with bean bag on head.
7. Hopping with bean bag on free foot.
8. Combination of locomotor skills (running & jumping).

RHYTHMICS

1. Walk and hop to specified counts.
2. Walk and jump to specified counts.
3. Step and clap to specified counts.
4. Step, swing and clap to specified counts.

5. Run forwards, backwards and sideways, starting steps.
6. Walking, running, jumping etc. to music.
7. Step, hop and clap.
8. Step, hop, side-step, clap.

Regional folk dance steps can be introduced.

Heel and toe polko and other foreign dance steps as given in the book, *Physical Education in Elementary Schools* by Ruth Evans.

GAMES OF FUNDAMENTAL SKILLS

Rolling ball.

Bouncing balls on floor.

Bouncing balls on wall from different distances and different heights.

Throwing balls of different sizes, underhand, overhand.

Bouncing balls on floor with gravel.

Bouncing balls on wall at angles, and running to catch.

Throwing balls on the run.

Catching thrown ball.

Catching a bounced ball.

Throwing a ball at targets.

Kicking ball.

Kicking ball on the run

Rope skipping with two feet, one foot, hopping on alternate foot.

Skipping over ropes held by partners

Stopping and kicking the ball

Stopping and kicking on the run

Hitting a stationery target

Hitting a moving target

Hitting ball with baseball bat

Hitting ball with cricket bat

Shuffle board (pushing desks with sticks)

Pushing and driving with hockey sticks

Dodging ball

Dribbling with feet—football

Stopping and trapping football

Serving volley ball underhand

Passing volleyball

Dribbling Basket-ball

Shooting Basket-ball

Passing Basket-ball

Floating in water

Pushing off the floor in the pool
Tucking and standing from flat position
Elementary arm and leg strokes

Development Exercises

Trunk curl
Sit ups
Knee hand push
Dips
Toe touch
Jump and turn
Thread and needle
Single squat
Jumping Jack from squat
Chin ups
Squat thrust
Swan (trunk raised with outstretch hands from prone lying).
Trunk twist
Front leaning rest.

Self Testing

Cat Walk
Crab Walk
Lame Dog Walk
Seal Crawl
Worm Walk
Rabbit hop
Mule Kick
Crouch balance
Airplane dip
Rooster fight
Hand Wrestle
Pull Across
Indian leg Wrestle
Chinese get-up
Knee dip
Wheel barrow
Rocking chair
Wring the dish rags
Jumping over wands
Twirling hoops

Jumping to hit a suspended object

Tossing a bean bag through a hoop held at different levels

Jumping across one or two ropes held at different heights and different distances apart.

Jumping from platforms of different heights

Obstacle run

Obstacle run with different jumps in the course

Obstacle run controlling a ball with feet.

Indigenous Activities

A. Namaskar—Start in V Standard.

B. Dands—Start in VI standard

1. Sadha Dand
2. Dand Jor (Floor Dips)
3. Gardan Kas.
4. Saf—Saf

C. Baithaks—Start in VI Standard

1. Sadhi Baithak
2. Sarak Baithak
3. Namaskar Baithak EK
4. Namaskar Baithak DO

D. Yogic Exercises (Standard VII)

1. Bhajanga
2. Ardha Salabha
3. Dhanu
4. Hala
5. Pachimatana
6. Chakra
7. Vakra
8. Utkata

Standard VIII

1. Vriksha
2. Shalabha
3. Tolangula
4. Ardha—Matsyendra
5. Baka
6. Kukuta
7. Vajra

Gymnastic

Walking on inclined planes

Swedish box, climbing and jumping off, dismount from three joint balance

Forward Roll
 Backward Roll
 Cart wheel
 Head Stand
 Hand Stand
 Thigh Mount
 Knee shoulder stand
 Horizontal stand
 Pyramid Building
 Leap and toe touch, legs sideward
 Leap and toe touch, Jack Knite
 Walking on balance beam
 Vaulting Box or Buck—different types of vaults
 Rope climbing
 Swinging with ropes
 Low Frames (Rolling, hanging, skinning the cat)
 High Frames (Hanging, Hanging and jumping, travelling)
 Vaulting our human backs.

Athletic

50 meter dash
 Relay (4 × 50 meters)
 50 meter shuttle relay
 Hurdling over low obstacles
 Standing Broad Jump
 Running Broad Jump
 Standing Hop-Step-Jump
 High Jump
 Ball throw for distance
 Swedish window
 Circuit training involving running, climbing, jumping, crawling under obstacle and vaulting.

Bibliography

1. Arumugam, E. S. *Elementary School Games* (Tamil). The author, L. M. C. Training School, Erode, 1957.
2. Halsey, Elizabeth and Porter, Lorner. *Physical Education for Children*. Holt, Rinehart and Winston, New York, 1963.
3. Entwistle, Annabelle. *Hand Books of Physical Education for Schools*. Boys and Girls: Standards 1-IV. London University Press, Ltd.
4. Evans, Ruth N. M. *Physical Education for Elementary Schools*. McGraw Hill Book Co., Inc., New York, 1958.

5. Pearson, C. Eric. *A Classroom Teacher's Guide to Physical Education*. Bureau of Publications, Teachers College, Columbia University, New York, 1958.
6. La Salle, Dorothy. *Guidance of Children Through Physical Education*. The Ronald Press Company, New York, 1957.
7. *Hand Book of Physical Education for School Boys*. Manager of Publications, Government of India, Delhi-6, 1962.

Age Group 6 Plus to 13

Simple Games (Games of low organisation)—Minor Games

1. Cat and Rat
2. Blind Man's Buff
3. Crocodile can't eat me (Pom Pom Pullaway)
4. Statues (Red light)
5. Run for your supper
6. Squirrel and Trees
7. Circle call Ball
8. Drop the Handkerchief (Variation)
9. Imitation Tag (Garden Scamp)
10. What is the time Mr. Wolf
11. Free and caught
12. Tag Variations
 - (a) Ordinary Tag
 - (b) Whip Tag
13. Three Deep Variations
14. Find a partner (Back to Back)
15. Fire on the Mountain (Forest look out)
16. Come with me
17. Pagalwala
18. Crows and Cranes
19. Spud and variations
20. Catch the Fox's tail
21. Simon says
22. Dodge Ball and variations
23. Dog and Bone (Snatch the Handkerchief)
24. King of the Ring (Dodge Ball)
25. Blind Hop Tag

Ref: Handbook of Physical Education for Boys, pp. 22, 23 & 24. Published by Ministry of Education, 1962.

Ref: Handbook of Physical Education for Boys, pp. 59, 60, 61 & 62. Published by Ministry of Education, 1962.

26. Four Corners
27. Luggage Van
28. Poison circle (Pull into circle)
29. Pincho (Pinch Oh!)
30. Touem and Run
31. Dodge and Mark
32. Form Threes, Fours, Fives, etc.
33. Club Guard (Variation)
34. Stealing sticks
35. Jump the Stick
36. Bombardment
37. Touch down carrying the object
38. Lagoria (Seven tiles)

Ref: Handbook of Physical Education for Boys, pp. 144 to 148. Published by the Ministry of Education, 1962.

Note: This list is only a suggestive one. Games belonging to select regions may be added.

Leadup Games (Starting from Standard IV)

1. Football Type

- (a) Number Football
- (b) Circle Football
- (c) Rotation Football
- (d) Line Football
- (e) Pin Football
- (f) Fiveman Football

2. Hockey Type

- (a) Number Hockey
- (b) Circle Hockey
- (c) Rotation Hockey
- (d) Line Hockey
- (e) Five man Hockey

3. Kabaddi Type

- (a) Whip Tag Kabaddi
- (b) Whip Kabaddi

- (c) Touch Kabaddi
- (d) Kick or Touch Indian Club Kabaddi
- (e) Releasing the Prisoner Kabaddi

4. **Kho Kho Type**

- (a) Thief and Policeman
- (b) Circle Kho-Kho

5. **Cricket Type**

- (a) Basket-ball
- (b) Indian Club Cricket
- (c) Football Cricket
- (d) Tip and Run

6. **Volleyball Type**

- (a) Throw Ball
- (b) End Ball
- (c) Keep it up
- (d) One Bounce Volleyball
- (e) Low net Volleyball
- (f) Unlimited touch Volleyball

7. **Basketball Type**

- (a) End Ball
- (b) Pin Basket-ball
- (c) Four Court Basket-ball
- (d) Two against two or three against three
- (e) Captain Ball
- (f) 5 Passes (Front Court)

8. **Softball Type***

- (a) Schlag Ball variations
- (b) Hit Pin Baseball with variations
- (c) Hand Softball
- (d) Foot Softball

Note: The list is only a suggestive one and variations and modifications to suit the regional needs may be attempted.

* Reference : Handbook of Physical Education for Boys, page 65 onwards.

Age Group 6--13***I. Relays :**

1. Simple running
2. Jump and ditch
3. Jump height
4. Run and throw
5. Dribble relay (various sports)
6. Potato race
7. Rope skipping
8. Caterpillar (centipede)
9. Arch ball
10. Zig-zig
11. Tunnel ball
12. Crab
13. Ball roll
14. Over and under
15. Double hopping
16. Siamese twins
17. Frog jump
18. Wheel barrow
19. Circle pass
20. Horse and rider
21. Chariot
22. Kangaroo
23. Tad pole
24. Sodan
25. Jump the stick

II. Contest: (Contests start from later classes—IV Standard onwards)

1. Back to Back lift
2. Back to Back push
3. Back to Back stick pullaway
4. Back to Back single stick pull
5. Back to Back tug

* Reference : Handbook of Phy. Edu. for School Boys. Page 62 onwards.

6. Drake fight
7. Flow struggle
8. Hand push
9. Hand wrestle
10. Knee slap (in pairs)
11. Knock over club (pairs)
12. Lame duck fight (,,)
13. Lifting contest (,,)
14. Line pull (,,)
14. Rooster fight (,,)
16. Skipping on toes (,,)
17. Stroke wrestling (,,)
18. Neck tug
19. Danish wrestle
20. Single arm chest push
21. India wrestle
22. Squat tug
23. Hopping one arm push
24. Hopping chest to chest push

Note: The activities included are only suggestive. Suitable modifications and variations on the basis of regional preferences may be attempted.

Syllabus

Age Group 6 plus to 13

Folk Dance

Dance and Dance Drama activities differ from state to state and even from region to region in India. It is, therefore recommended that a teacher select the type of activities according to the cultural traditions of the region.

Activities

1. Fundamentals in Walking, Running, Skipping, Sliding, Hopping to Music or Counts (specially four or two counts).

2. Laugh—play Dance.
3. Simple Dance Drama
4. Song of Greeting and Prayer with simple Rhythmic Movements on four counts.
5. Milkmaid song (Local Languages)
6. Harvest song.
7. Boating song.
8. Various expressive movements from daily life *e.g.*, the way we wash our clothes etc.

With Equipment

1. Tipri (on two or four counts).
2. Skipping with single rope (individual—forward and backward).
3. Skipping with partner (skipping with ropes).
4. Cymbals (on different counts) with various formations.

ELEMENTARY SCHOOL

Model Lesson No. 1. Immitative Activities for Age Group 6 to 8+

- Introductory :** Free running.
 Running to an assigned area.
 Chasing the teacher.
 Running to fetch leaves.
 Run about and catch imaginary bean bags-
 tennis balls.
 Running in pairs to touch some colours, hopping
 and jumping the ditch.
- Mimetics :** Form a circle by catching hands
 Imitate animals' and birds' movement—*e.g.*,
 elephant walk.
 Cat and dog, trotting like a horse, aeroplane
 movement.
 In twos—lame dog and fight, cat fight, bull fight
 on all fours. A visit to a zoo and imitating
 different animals.

Informal Exercises :

- Arm—Position standing: movement
- (i) Starting of a motor car (handle action)
 - (ii) Throwing an imaginary ball as high as possible and catching
 with both hands. Repeat with other hand.
 - (iii) Milk churning action.

Trunk:—Position standing

- (i) Washer man's washing action
- (ii) Wood chopping action from both sides
- (iii) Tree swerving with wind.

Leg:

- (i) Start of a motor cycle—(imaginary leg kick with arms raised)
- (ii) Repeat above with left leg.
- (iii) Reach as far forward as you can with the toe (while other foot is stationary).

Balance:

- (i) Free kicking movement with either foot.
- (ii) Knee raising alternately.
- (iii) One leg swinging backward and forward.

Story Play :

- (i) A day in a village
- (ii) A hunting story
- (iii) A sleeping Princess in a jungle

Instruction

1. To give a child a well balanced exercise and second to help develop his dramatic ability.

- (i) The teacher should work out and adapt story plays of his own based on stories already familiar to the children.
- (ii) The movements should be suggested sometimes by the children and sometimes by the teacher.
- (iii) The whole body should be brought into the movements. Movements should be large and free with emphasis on vigorous action.
- (iv) No formal commands should be used.
- (v) A circle formation is recommended for both indoor and outdoor.

ACTION SONGS: (i) PANI AYA DAURO DAURO—

(ii) MERA MOTA SOTA, MERA SOTA MOTA.

(iii) Marching with claps or simple words; rhythms with marching.

- GAMES : Formation circle.
- (i) Cat and rat
 - (ii) Squirrel and trees
 - (iii) Animal chase—an object being passed from sitting or standing position. Second object being passed as chasing just like dog chasing rabbit.
- YELLS:
- (i) APNA DESH—ABAD HO
 - (ii) DUSHMAN—BARBAD HO
 - (iii) DHARM YUDH—LARENGE
AZADI—KAYAM RAKHENGE
 - (iv) BHARAT MATA KI—JAI HO
JAI HIND

Note: The selection for a particular lesson can be made out of these activities in a progressive order.

MIDDLE SCHOOL

Model Lesson No. 2

Age Group 12+ to 14+

INTRODUCTORY :

- (i) Free skipping with skipping ropes
- (ii) Threading the needle action by making the rope shorter and passing the body through a loop—back and forth.
- (iii) Skip running with rope to assigned area.
- (iv) Free cart wheeling.

DEVELOPMENTAL :

Arm—Position—neck firm (*i.e.*, arms bent at shoulders, palms facing towards neck, finger and thumbs together touching at the back of the neck.

Exercise—arms flinging side ways, count one, fling the arms side ways, count two—back to starting position.

Trunk:—Position—astride—hand to the waist.

Exercise—count one, bend the trunk to touch the ground with finger tips.

Exercise—count two—In between legs, count three—as in count one.

Exercise—count four—clap in front & repeat.

Abdominal—Position—crouch sitting, full knees bent with hands on the floor between the arms.

Exercise count one—Kicking backward to straighten the legs touching with toes and count two—back to starting position.

Leg: (i) Position—Crouch sit.

Exercise:—Alternate leg stretching sideways.

(ii) Position—standing with hands on hips.

Exercise—Hopping on one leg and alternate toe placing

(i) forward (ii) sideways (iii) forward (iv) back—Repeat with left foot.

Break can be introduced in between if the exercises are more than five.

For example—Stamping of feet, patting thighs to signify thunder, sharp clap for lightening and hand rubbing with some noise for rain.

GROUP WORK:—The class can be divided into four groups—

Three groups under pupil leader revising skills already taught.

Fourth group acquiring a new skill under the teacher.

GROUP A.

New skill Ghati Lezim—Char Thoke—Ath Thoke
Kadam Tal & Age Pao

GROUP B.

Cymbal drill. Simple two or four count exercises.

GROUP C.

Simple stunts. In pairs one hand standing with supports back to back left.

GROUP D.

Surya Namaskar—elementary

After sometime rotation so that every group participates in every activity.

Recreation :

- GAME:— (i) Pluck the tail
(ii) King of the ring (Dodge ball)
(iii) Luggage van
(iv) Ball pass relay.

Reassembly and Dismissal:—

Reference Books:

- (i) Handbook of Physical Education for School Boys.
(ii) Physical Education for Elementary School by Nelson and Vanhagen
(iii) Board of Education Syllabus of Physical Training for Schools.
(iv) Syllabus of Physical Education Activities for Secondary Schools.

(3) ENGLISH

A. English Language

1. Study and practice of the important blocks of the language.
 - (a) The Articles

- (b) The Interrogatives—Specific Questions
 - (c) The Yes—No (General) Questions
 - (d) The Tenses
 - (e) Reported Speech
 - (f) The Passive Voice
 - (g) Question—Tags
 - (h) Longer utterances—sentences with two or more than two clauses.
 - (i) Phrase—patterns with nouns, verbs, adjectives and adverbs as head words
 - (j) Phrasal Verbs
 - (k) Useful formulas and usages
 - (l) Short forms—contractions
 - (m) Study of different word forms
2. Practice in writing controlled compositions including very short stories for the Elementary and Middle School level.
 3. Intensive study of—
 - (a) A book of English prose written within the limits of certain structures and vocabulary items for the High School Stage.
 - (b) A book of simplified and graded short stories for the Higher Secondary.
 - (c) A simplified novel.
 - (d) A book of very simple verse.
 4. Practice in constructing substitution tables, language games and different types of exercises on different aspects of English.
 5. How to use a dictionary.

B. Linguistics and Phonetics

1. Some idea of the nature, behaviour and function of language
2. How every language is a separate system
3. The four important language skills
4. The sounds of English
5. Stress and rhythm
6. Important intonation patterns
7. Reading and writing short passages of prose in phonetic script
8. Practice in reading simple passages of prose and simple verses.

C. Methods of Teaching

1. Some important principles of Language Teaching
2. The Aural-Oral Approach
3. The Direct Method

4. The Structural Approach—selection and grading of structures
5. Selection of content vocabulary
6. Situational teaching
7. The various aids—the blackboard, objects and pictures, the text-books etc.
8. The teaching of reading and writing
9. Oral composition—describing very simple situations within limited structures and vocabulary
10. Telling very simple and short stories, acting short dramatic scenes, reciting simple verses.
11. Selection of textbooks and story books for Elementary and Middle School children
12. Organising and playing language games
13. Helping pupils to cultivate reading habits in English
14. Constructing tests, both oral and written.

4) HINDI/MODERN INDIAN LANGUAGES OTHER THAN MOTHER TONGUE

The following syllabus is proposed for elementary teacher training institutions to prepare teachers for primary and middle classes.

It has two sections:—

- I. Content
- II. Methods

Section I includes remedial teaching to make up the deficiency of the pupil teachers in language content and also give them professional proficiency. It has two sub-sections, *viz.*,

- (a) Theory
- (b) Practical

Section II includes the topics on the methods of teaching which are more relevant to the teaching of elementary classes.

The distribution of periods over the syllabus will be as follows:—

Section	—	Periods required
I. (a) Theory	—	30 + 5 = 35
(b) Practical	—	70 - 10 = 60
II. Methods of Teaching	—	50 + 5 = 55
Total	—	150

Section—I Content —Remedial Teaching**(a) Theory :**

1. Word formation
2. Give one word for a group of words
3. Distinction between similar words, phrases, idioms and proverbs.
4. Syntax—structure and agreement
5. Punctuation.
6. Common errors and their use in teaching:—
 - (a) Errors in pronunciation.
 - (b) Errors in spelling.
 - (c) Errors in semantics.
 - (d) Errors of number, persons and gender.
7. Preparation of teaching material based on—
 - (i) common errors
 - (ii) comparable elements of language, in respect of the following aspects of language :
 - a. Speaking
 - b. Reading, and
 - c. Writing

(b) Practical :

1. Development of the instructional objectives for primary and middle stages (Group work).
2. Development of learning activities for the objectives.
3. Development of the following abilities in pupil teachers
 - (a) Speaking (Speech training and verbal expression)
 - (b) Reading (Loud, silent and also rapid reading)
 - (c) Writing (Calligraphy and composition).
4. Preparation of teaching material, as suggested in theory.

Section—II Methods of Teaching

1. Language and mental development.
2. Role of mother tongue in child's education.
3. Objectives of teaching Hindi at primary and middle levels.
4. Speech training to beginners.
5. Oral expression through different forms.
6. Teaching of reading to beginners.
7. Loud reading and silent reading.

8. Intensive and extensive reading.
9. Teaching of meaning.
10. Teaching of prose (essay, story and drama), poetry and grammar.
11. Teaching of writing to beginners (calligraphy).
12. Teaching of written composition.
13. Material aids in teaching Hindi.
14. Evaluation in Hindi.

(5) ART

Theory:

1. Role of art in Child Education.
2. Meaning and scope of creative art education programme.
3. Psychology of development with special reference to:
 - (a) stages of development
 - (b) imaginative and imaginary
 - (c) creative faculties, their recognition and guidance.
4. Basic teaching concepts—with special reference to art education.

Practicals:

Experience with several media such as:

1. Pencil—black or coloured, on white or coloured paper.
2. Charcoal on paper, white or coloured.
3. Pastels, marking crayons, coloured chalk on paper—white or coloured.
4. Powder paint (wet) on large sheet, cover paper, newsprint paper, packing paper or any other surfaces such as earthen pot or broken earthen ware pieces.
5. Soluble dyes or inks on papers.
6. Mixed media—such as inks and crayon, guache and inks, chalk on wet paper, dry powder on wet paper etc.
7. Dry powder colour (mixed with grit material such as stone or grain powder) on ground (Rangoli, or Rangavali).
8. Alpana—rice wash on ground.
9. Floral designs on ground.
10. Designs with grains of various colours.
11. Dyed saw dust on ground.
12. Mosaics and collages.
 - (a) Paper mosaics—waste paper could be used.
 - (b) Stones and glass pieces—pebbles of different sizes and colours give good textual relations.

- (c) Coloured cloth pieces—pasted or stitched (applique work).
 - (d) Designs in sand and stone.
 - (e) Waste materials, wood, metal, reeds, glass, stones, seeds, tiles etc.
 - (f) Coloured tissue paper on white or tinted surfaces—paper tearings.
 - (g) Coloured cellophane paper (collage).
13. (a) Printing on cloth with potato block, wood block or linoleum block.
14. Modelling media:
- (a) Clay—modelling and pottery making.
 - (b) Plasticine.
 - (c) Carving in soap, plaster, wood, softstone, bamboo etc.
 - (d) Paper tearing and sculpturing.
 - (e) Mask making in several media.
15. Model making with various materials including Mobile and Stable making.

(6) REMEDIAL EDUCATION

- I. (a) Definition of the term Backward Child. Defining backwardness in Indian Schools. Individual differences and their bearing on backwardness.
- (b) Location and classification of Backward Children; assessment and diagnostic procedures. Characteristics of the backward child.
 - (c) Aetiology and causal factors in Educational Retardation; Physical, Intellectual, Emotional, Environmental—home, school, community and cultural.
 - (d) Isolating causes of learning difficulties.
- II. Techniques of diagnosis:
- (a) The nature of diagnosis
 - (b) The approach to diagnosis—steps in diagnosis
 - (c) Level of diagnosis—general and analytical
- III. (a) What is meant by Remedial Education?
- (b) Aims of the Remedial Programme
 - (c) Principles of Remedial Education.
- IV. Diagnosis in reading:
- (a) Identifying the poor readers
 - (b) Determining the causes of the reading disability

- (c) Techniques for providing remedial treatment:
 - (i) General technique
 - (ii) Improving vocabulary
 - (iii) Methods of attacking unfamiliar words
 - (iv) Improving speed of reading
 - (v) Improving reading comprehension.
 - (d) Organisation of remedial reading work.
- V. Treatment of learning difficulties in arithmetic:
- (a) Identifying pupils needing remedial instruction in Arithmetic.
 - (b) Diagnostic tests in Arithmetic.
 - (c) Causes of difficulty in arithmetic.
 - (d) Principles of remedial teaching in arithmetic.
 - (e) Treatment of difficulties in number operations: remedial exercises and materials.
 - (f) Improving problem-solving ability.
- VI. Practical work:
1. Construction of simple diagnostic tools
 2. Practice in drawing up remedial education programmes in the areas of reading and arithmetic.

Books Recommended

1. '*The Backward Child*'. A Pamphlet. Her Majesty's Stationery Office, London.
2. '*Education of the Backward Child*'. National Council of Educational Research and Training, Delhi 1964.
3. Blair, Glen Myers. *Diagnostic and Remedial Teaching*. The Macmillan Co., New York, 1956.
4. Burt, Cyril. *The Causes and Treatment of Backwardness*. University of London Press, 1953.
5. Gates, Aruther. *The Improvement of Reading*. Macmillan Co. New York, 1955.
6. Ministry of Education Pamphlet. *Reading Ability*. Published by Her Majesty's Stationery Office, London, 1950.
7. Ministry of Education Pamphlet No. 5. *Special Educational Treatment*. H.M.S.O., London.
8. Morton, Robert Lee. *Helping Children Learn Arithmetic*. Silver Burdett, New York, 1960.

(7) MUSIC—Special Course**Objectives :**

Training teachers endowed with musical abilities, so as to enable them to teach music in primary and middle schools.

Time available :

150 periods of 45 minutes, spread over the span of two years.

Course of Study**Theory****A. Content****1. Theory of 'Swara'**

(Nada, Sruti, Suddha, Vikrita, Aroha, Abaroha, Saptaka, Dhvani, Andolan, Harmony, Melody etc.)

2. Theory of 'Raga'

(Thata, Raja, Jatil Badi, Bibadi, Barjita, Suddha-Salauka-Saukirna, Raga-rupa, Hours of Singing a Raga, Alap-Vista-tan, Sthayee-Antara, Pakad, Kan, etc.)

3. Theory of 'Tala'

(Chhanda, Matra, Laya, Tala, Sam, Fank, Avartan, Gati, Bol, Theka, etc.)

4. Brief history of Indian music—Ancient, Medieval and Modern age—Classical and Folk styles.**5. Life history and works of the great composers like Tansen, Nayak Gopal, Baijnath, Amir Khasru, Niyamat Khan, Mohammad Shah, Kabirdas, Meerabai, Tulsidas, Jaidev; Tyagraj, Bhatkhande, Bishnu Digambar and Rabindranath.****6. General Theory of Sound**

(Soura of sound, vibration, noise and musical notes, strang, percussion, solid and blowing instruments, harmonium and its equally tempered scale).

7. Theory of Notation

Different systems of notation, merits and demerits.

B. Method**8. Method of teaching music to the class. Teaching according to the different grades. Rhythmics and action songs for young children.****9. Teaching aids and musical instruments—radio, gramophone, tape recorder, etc., and their uses in music teaching.**

10. Need of music education for all children—Benefits of music teaching.
11. Educational Organisation of Musical treats and Recreational Programmes.
12. Organisation of Music appreciation classes.
13. Elements of social and cultural unity in Indian Music—helping National Integration and Communal harmony.

Practice

1. Voice training—vocal practice of the musical notes.
2. Four Drupad and two Dhamar, eight Khayal (slow and fast), six Bhajan.
Ragas—Eman, Bilabal, Kafi, Khamaj Bhairab, Bharabi, Ashabari, Bhupali, Behag, Bhimpalasi, Purbi and Marwa.
3. Talas—Trital, Ektal, Choutal, Dhamar, Jhaptal, Toda, Kaharba and Dadra.
4. National Anthem, a few patriotic, seasonal, folk and regional songs.
5. A few functional songs, action songs, rhymes and children's songs. Practice in tuning simple rhymes.
6. Practice in notation and sight reading of notations.
7. Experience in teaching music to the children and organising musical programmes, including children's drama, during teaching practice.

Reference Books :

1. Sangit Shastra Darpan. Shanti Gobardhan (Allahabad) (1st and 2nd parts).
2. Raga Parichaya. Harishchandra Srivastava (Allahabad). (in 3 parts).
3. Great Composers (Pt. I & Pt. II). P. Samlamoorthy.
4. History of Indian Music. P. Samlamoorthy.
5. Music of India. H. A. Popley.
6. Music of India. Sripada Bandyopadhyaya.
7. Theory of India Music. Bishan Swarup.
8. Historical Developments of Indian Music. Swami Prajnananende.
9. A Short Historical Survey of the Music of Upper India. V. N. Bhatkhande.
10. Evolution of Songs and Life of Great Musicians. Sripada Bandyopadhyaya.
11. Teaching Music to the Class. Charles Hooper.
12. Music in Education. UNESCO.
13. Utilising Festivals in Education. A. S. Arinshalingam.
14. Sangitanjali (in six parts). Omprakash Thakur.

A P P E N D I X I V

Equipment for Craftwork

(a) **Spinning and Weaving:** (for a batch of 50 trainees)

1. Pitlooms or framelooms	10
2. Reeds of different sizes	30 sets
3. Heads of different counts	30
4. Charkha with spindle	10
5. Warping machine	10 (one set)
6. Reels	36
7. Reel winders	10
8. Tape—50 ft.	one
9. Scissors	10
10. Shuttle	10
11. Perns	500
12. Nara	500
13. Ginning machine	5
14. Matha patla	10 sets
15. Carding bow	10
16. Strength measuring machine	5 sets
17. Balance with weights	One set
18. Knives	10
19. Dyeing and bleaching equipment	
20. Almirah	2

N.B.: Every trainee offering spinning and weaving should have his own takli-charkha and hand carding bow.

(b) **Woodwork** (for a batch of 50 trainees).

1. Basula	10
2. Handsaw 18"	25
3. Handsaw 12"	25
4. Ordinary plane	50
5. Big plane	5
6. Jack plane	5

7.	Chisel 2"	5
8.	Chisel 1½"	5
9.	Chisel 1"	10
10.	Chisel ¾"	10
11.	Chisel ½"	10
12.	Try square small	25
13.	Try square big	5
14.	Marking gauge	50
15.	Sharpening stone	25
16.	Hammer of different sizes	10
17.	File (rough)	10
18.	File (triangular)	10
19.	File (round)	5
20.	File (flat)	5
21.	Auger of different sizes	5
22.	Caliper	5+5
23.	Protractor	2
24.	Wrench of different sizes	10
25.	Screw driver (big)	5
26.	Screw driver (small)	10
27.	Palas	10
28.	Vices (big and small)	5+5
29.	Working tables	10

(c) **Tailoring** (for a batch of 50 trainees)

1.	Sewing machine	15
2.	Scissors (big)	10
3.	Scissors (small)	25
4.	Tape of 5 ft.	50
5.	L. Senare (wooden)	10
6.	Table (big)	3
7.	Table (small)	10
8.	Small tools	50
9.	Screw driver (big)	2
10.	Screw driver (small)	10
11.	Small hammer	2
12.	Marking chalk	50
13.	Needles	50
14.	Almirah	3

(d) **Agriculture** (for a batch of 50 trainees)

1.	Senior plough	5
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2.	Junior plough	5
3.	Deshi plough	5
4.	Chara machine	1
5.	Spade	25
6.	English spade	10
7.	Garden fork	5
8.	Khurpi	25
9.	Fawra	5
10.	Sickles	10
11.	Balance with weights	2 sets
12.	Tape-50'	1
13.	Budding knife	5
14.	Pruning knife	5
15.	Basula	2
16.	Hand saw	2
17.	Kulhari	2
18.	Buckets	10
19.	Reti	2
20.	Panjhar jhar	10
21.	Almirah	2
22.	Menga	2

Course for Teacher Educators/Supervisors

(1) *Objectives of the Course:*

The following course aims at improving the insights of teacher educators and administrators/supervisors on whose shoulders the task of improving elementary teachers would devolve. In this course, therefore, these two categories of persons have been kept in view.

(2) *Admission Requirements:*

Trained graduates, who have a post graduate degree or diploma in education like B.T., B.Ed., L.T., etc., would be qualified for admission to this course. Preference may be given to people on the job *i.e.*, Method Masters, Subject Supervisors of elementary teacher training institutions and Supervisors and Inspectors of Education Departments. However, people aspiring for these places may also be admitted to this course if they have the necessary academic qualifications.

(3) *Duration:*

The course which shall extend over one full academic year may lead to a Post-graduate Diploma or a Master's degree in Education.

(4) *The Course of Studies:*

- Paper I. Sociological and Psychological Foundations of Education.
- Part II. Principles of curriculum construction and dynamic approaches to teaching.
- Paper III. Techniques and interpretation of educational research and evaluation.
- Paper IV. Problems of Elementary Education.
- Paper V. Either (i) Administration and Supervision or (ii) Teacher Education.

(5) *Practical Work:*

1. Practice Teaching:—multiple class teaching and correlated teaching. Handling the beginning class and the large class.

2. Organization of school community programmes, *viz.*, survey of community around the school with a view to initiating social education programmes and to get the community resources and help for solving problems of the school.
3. Child study.
4. Evaluating the work of the school and of the class.
5. Supervision of practice teaching by pupil teachers and class teaching by elementary school teachers (including internship practices).
6. Maintenance of student records.
7. Organising workshops, seminars, discussion groups etc.
8. Experience in craft-work.

(6) *Examination and Evaluation:*

Scheme of Examination

Part I.	Theory	500 marks
Part II.	Practical work	200 marks
Part III.	Viva Voce	100 marks.

Examination in theory papers will be both internal and external in accordance with the local practices. However, it may be suggested that at least half the theory papers, should be externally examined. The institution concerned might mark the candidate to the extent of 25 marks out of the total of 100. This internal assessment should be based on the year's work in connection with the paper, and thus the theory paper may be of 75 marks only.

The practical work would be examined internally only. The viva voce should be conducted by a team of at least three examiners of whom at least one shall be external.

(7) *Staff Requirement:*

The staff requirement would be similar to any post-graduate department of a University.

Note—Such an institution should have a primary training college with a practising elementary school attached to it. These latter would serve as laboratories for such a course,

COURSES OF STUDIES

Paper I

Sociological and Psychological Foundations of Education

A. Objectives :

1. (a) To enable the student to understand the educational process as an integral part of the structure and development of society.
- (b) To lead him to gain an insight into the functions of the teacher as an agent of planned change.
2. (a) To enable the student to make a deeper study of the process of the physical, intellectual and emotional growth of the child with a view to utilizing it for improving the teaching-learning situation in the school.
- (b) To help him to understand human behaviour in the context of social forces and to enable him to apply this understanding to the process of educating children as well as adults.

B. Courses of studies :

I. *Sociological Foundations:*

The structure of society and the characteristics of communities. Special characteristics of rural communities. Interrelationships of the various parts of the social structure, such as class and caste, associations and institutions, etc. The relationship of the structure to educational provision. Values, beliefs, customs and other modes of social control. Their effect on education as social control. The process of social and cultural change. Education as an instrument of social change. Educational problems specific to old cultures and to developing countries. Social disorganization and social reconstruction. The importance of Community Development Movement.

II. *Psychological Foundations:*

A. Child development : (From the age of 2 to 14).

Physical, intellectual and emotional development ;

- (a) Genetic factors of development. The process of physiological maturation.

- (b) Development of intelligence and ability. Individual differences. Factors influencing perceptual development. The ability to communicate and solve problems.
 - (c) Emotional development. Satisfaction of needs. Primary and secondary needs. Emotional reactions to the satisfaction and blocking of needs. The 'self' in relation to the social situation. Social adjustment.
- (2) **Learning as a complex phenomenon :**
- (a) Theories of learning. The nature of learning. Factors involved in successful learning and retention of learning.
 - (b) The learning situation in the school: effects of environment, physical condition of the child, teacher's personality, group attitudes etc., on the child's learning process.
 - (c) Creativity in learning. Problem-solving.
- (3) **Problem of exceptional children :**

Mentally gifted and retarded; and mentally, physically and socially handicapped children. Their emotional and educational needs. Special educational services for exceptional children.

III. *The Individual in Society :*

Social learning. Mechanisms of social interaction. Social norms and individual behaviour. Motivation and incentives. Role and status as factors of behaviour. Formation of self-image and social attitudes. The operation of the forces of suggestion and imitation in determining behaviour. The distinguishing characteristics of groups such as class, club, crowd, race, nation and their modes of behaviour. The elements of leadership. Interaction within small groups. Interpersonal relations and the process of adjustment. Democracy as a phenomenon of group-behaviour. Utilization of the process of group-interaction in working with children and adults.

Occupational adjustment of teachers in the context of the social situation.

Paper II

Principles of Curriculum Construction and Dynamic Approaches to Teaching

A. Objectives :

- (1) To give the student a clear understanding of the philosophy underlying curriculum construction.

- (2) To enable the student to become continuously thoughtful of the purposes and goals of elementary education in Indian society.
- (3) Help him to develop a realisation of the implications of individual differences for teaching.
- (4) Assist him to understand the dynamic approaches to teaching in the elementary school.

B. Courses of Study :

1. *Foundations of Curriculum Development :*

- (i) The role of curriculum planning in education.
- (ii) Methodology of curriculum planning; subject centred, objective centred, activity centred, problem areas based on needs of youth.

2. *Selection of Content in terms of the following criteria :*

- (i) Goals and objectives of education (based on the needs and values of society, and needs and purposes of the learner);
- (ii) Knowledge and skills to be learnt (based on the disciplines and fields of study as related to the purposes of education);
- (iii) Scope and sequence of content and skills to be taught; and
- (iv) Goals and objectives of the learners individually and as a group.

3. *Organisation of the Content :*

- (i) Selecting learning experiences;
- (ii) Correlation and integration;
- (iii) Provision for individual differences;
- (iv) Pupil participation in developing units of work; and
- (v) Continuous evaluation as an integral part of curriculum.

4. *Evolving a Proper Curriculum for Indian Conditions :*

- (i) Educational traditions;
- (ii) The Indian pupil and his culture;
- (iii) The Indian society;
- (iv) Purposes and expectations of Indian educators and influential leaders regarding elementary education; and
- (v) Current curriculum trends and proposals.

5. *Audio-Visual Material as Dynamic Aids to Learning and Teaching:*

- (i) Role of sensory experience and learning;
- (ii) Scope of audio-visual education;
- (iii) Psychological Foundations of audio-visual education; and
- (iv) Application of audio-visual methods for diagnostic and remedial work in education.

6. *Dynamic Methods of Teaching and Learning:*

- (i) Class-room instruction: activity methods and individual growth, laboratory method;
- (ii) Guided Study: Assignment Method, Supervised Study;
- (iii) Group Method: Tutorials and Seminars, Discussion groups, Symposium, Forum, Workshops etc.

Paper III

Techniques and Interpretation of Educational Research and Evaluation*

A. Objectives :

- (1) Develop in the student understandings about methods of research and evaluation and basic terminology used in research and evaluation;
- (2) Develop in him abilities for discovery of problems and initiation of inquiry;
- (3) Enable him to write a research paper or dissertation.

B. Courses of Study :

Section I

Theory: 60 marks.

- 1. Use of standard reference books. Familiarity with library cards and use of card catalogue; compiling a bibliography.

* The theoretical discussion on each unit of this paper should be followed by practical work to train the student in the use of each technique. Such practical work should be presented at viva voce and assessed under field work.

Every student will be required to maintain a record of the field work.

2. Obtaining information about the behaviour of persons or groups under different circumstances:
 - (a) Observation;
 - (b) Interview;
 - (c) Questionnaire;
 - (d) Measurement and rating scales;
 - (e) Projective techniques.
3. Case Study.
4. Introduction to simple techniques in sociometry:
 - (a) Preparation of sociogram and observation charts for group discussions.
 - (b) Preparation of reaction sheets for meetings and group discussions.
 - (c) Self evaluation check-lists for group work.
 - (d) Questionnaires for opinion polls and social surveys etc.
5. Collection, classification, tabulation and interpretation of data.
6. Statistics:
 - (a) Statistical measures for the analysis of data.
 - (b) Measures of central tendency, variability, correlation etc.
 - (c) Tests of significance.
7. Sampling, sample survey and design of experiments.
8. Action research.
9. Evaluation procedure.
10. Evaluation of reported research.

Section II

Field work on prescribed topics using techniques mentioned in Section I:
40 marks.

Paper IV

Problems of Elementary Education

A. Objectives :

- (i) To give an insight into the history and present status of elementary education in India and the State,

- (2) To give an awareness of the problems of qualitative improvement and quantitative expansion of elementary education in the country.

Courses of Study :

1. Development of Elementary Education :

Short history of elementary education in India. Its organisation, administration, financing and supervision. Recognition of elementary education as a right of individual in India and the world. Towards universal elementary education in India. Constitutional and legislative position of Elementary Education in India and the State. Compulsory Education Law. Wastage and Stagnation.

2. Elementary School in National Life :

Philosophy of life and education in India. Purpose of the Elementary School—provision for it under the Five Year Plans. School as a community: co-curricular activities; pupils' organisations. School and community relationships. Some successful experiments in India and abroad. Democratic decentralisation and its impact on the school.

3. The Elementary School :

Need of philosophy of life for the teacher. The supply of teachers. Their academic and professional qualifications and recruitment procedures and service conditions. Professional improvement and social standards. Teacher's organisation. Women teachers.

4. School Improvement :

School improvement programmes in India. School Health Service. Mid-day meals. The school year: adjustment of the school programme, vacations. The single teacher school. Wastage and stagnation. Education of children in the remote and scarcity areas—nomads, hill tribes, scheduled and backward classes. Education of girls.

Improvement of the Elementary School Curriculum and text books: The Basic programme. The place of English. School and moral and religious education. Emotional integration. Agencies helping the improvement of elementary school.

Paper V(i)

[Optional]

Administration and Supervision**A. Objectives :**

- (1) To develop among students understanding of the scope and procedures of school administration.
- (2) To develop in them understanding of the control of school system and machinery of school administration.
- (3) To acquaint students with the techniques of effective supervision.

B. Courses of Study :

1. Principles of elementary school administration—equality of opportunity. Universality of provision; Universality of enrolment and problems of attendance and retention; centralization *vs.* decentralization; democratic decentralization.
2. Historical development of administration of elementary education in India.
3. Educational control and management—Agencies and authorities at the Elementary school level—Types of school systems—Role of Local Bodies in the administration of elementary education; Administration of Elementary Education in rural and urban areas; Primary Education Act of the State—detailed study of its provisions and implications.
4. Financial and economic aspects of Elementary Education—Sources and resources of funds. Grant in aid, principles and practices of utilization of public cooperation. Working out cost of an elementary school; School Budget; working out cost of an elementary teacher education institution; budget of a teacher education institution; allocation of funds for primary education and Teacher Education at the Elementary level in the Five Year Plans.
5. *Inspection and Supervision*

Inspector's Duties; Inspector's office—its records; methods of collecting statistics from schools; concepts of supervision; role of inspectors in school improvement project; role of inspectors in Community Development; role of supervision in improvement of class teaching; class-organisation; inspection and supervision of single teacher school; inspection and super-

vision of basic schools; Inspection of school office, records, registers and accounts; Report of school inspection; Inspection of Elementary Teacher Education Institution; Relationship of inspectors with local bodies; Criteria for evaluation and appraisal.

6. *Special Administrative Problems :*

- (i) Elementary School Teacher; qualifications; recruitment. His pre-service and inservice education. Service conditions of elementary school teachers. Women teachers—their recruitment and their special problems.
- (ii) Compulsory education and its administrative implications—wastage and stagnation: enrolment drives; incentives; organisation of single teacher schools. Organisation of ancillary services. Adjustment of school timings (shift system). School year and adjustment of vacation.
- (iii) Basic Education—orientation of elementary schools towards the Basic pattern; conversion of ordinary schools into basic school; residential schools and residential teacher education institutions.
- (iv) Elementary school building; its requirements; type plans and designs.
- (v) Equipment of ordinary and basic schools.

Paper V (ii)

Teacher Education

A. Objectives :

- (1) To develop in the students a thorough acquaintance with the present system of Teacher Education in India and abroad.
- (2) To give them an idea of the development of Teacher Education in India.
- (3) To enable them to identify and appreciate problems faced in the area of Teacher Education.

B. Courses of Study :

1. *History:*

Evolution and Development of Teacher Education in India. Teacher Education vs. Teacher Training.

2. *The Teacher We Need Today:*

Aims and Objectives of Teacher Education in India. The number and types of teachers. Qualifications and preparation of Teachers. Recruitment and selection of student teachers at different levels. Improved methods for the same. Types of teacher education programmes and their curricula in present day India, U.K., U.S.S.R., U.S.A. and Japan with underlying principles.

3. *Problems of Teacher Education:*

Curriculum improvement; place of General Education; internship programme; relationship of the Training Institution with the school and the community; library and equipment; demonstration and experimental school; supervision of practical work and maintenance of records. Instructional methods in teacher education.

Control and finances of Teacher Education Institutions. Examining authorities. Problem of autonomy for such institutions. Inspection and supervision of such institutions.

The Teacher Educators. Their qualifications, pre-service preparation and inservice education. Their professional growth. Professional organisations.

Preparation of specialist teachers of Art, Craft, Music, Physical Education, etc.

Internal Organisational set up of Teacher Education Institutions and its problems. The staffing pattern. Optimum size. New types of institutions. Regional Colleges of Education. The four year college. Comprehensive Colleges. State Institutes of Education.

4. *Evaluation and Examination:*

Internal *vs.* external. Continuous internal assessment record.

Note: The problems should be studied in comparison with the countries mentioned above.

