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Teacher Education

DAME203

CENTRE FOR DISTANCE AND ONLINE EDUCATION

TEACHER EDUCATION
(DAME203)

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INTRODUCTION

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Education is derived from the Latin word *educare*, which means 'to bring up' or 'to raise'. Education is of value in itself (intrinsic value) and is valued for what it can do (instrumental value). Intrinsically it promotes a feeling of wisdom and personal well-being. Instrumental benefits would be in terms of degrees and skills one can use to get a good job and a high social position. Education is the fundamental enabler of a knowledge based economy.

Education in India is provided by the public sector as well as the private sector, with control and funding coming from three levels, namely, central, state, and local. The central (CBSE, ICSE) and most state boards uniformly follow the 'ten plus two plus three' pattern of education. In this pattern, study of twelve years is done in a school and junior college (ten plus two years) and the attainment of a Bachelor's degree takes three years of studies thereafter.

The first ten years is further subdivided into five years of primary education, three years of upper primary, followed by two years of high school. It is important to clarify that while there are private schools in India, they are highly regulated in terms of what they can teach, in what form they can operate (for example, only non-profit organizations can run an accredited educational institution) and all other aspects of operation.

This book, *Teacher Education*, introduces the students to the concept of teacher education and, discussing the ethics of teaching as a profession, evaluate trends of research in teacher education in India and abroad. This book has been written in the self-instructional mode (SIM) wherein each unit begins with an 'Introduction' to the topic followed by an outline of the 'Unit Objectives'. The detailed content is then presented in a simple and an organized manner, interspersed with 'Check Your Progress' questions to test the understanding of the students. A 'Summary' along with a list of 'Key Terms' and a set of 'Questions and Exercises' is also provided at the end of each unit.

UNIT 1 AN INTRODUCTION TO TEACHER EDUCATION

Structure

1.0 INTRODUCTION

A teacher basically is one who delivers an educational programme, gives instructions based on certain prescribed syllabus, guides students in achieving their objectives as desired by the aim of education, helps in tackling problematic situations, develops curricular and extracurricular skills and helps the students to develop an integrated personality to cope up with the changing demands of the society.

Teacher education refers to the policies and procedures designed to equip prospective teachers with the knowledge, attitudes, behaviour and skills they require

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to perform their tasks effectively in the classroom, and wider community. National Council for Teacher Education (NCTE), an apex body controlling teacher education programmes in the country, defined teacher education as 'a programme of education, research and training of persons to teach from pre-primary to higher education level'. According to *Goods Dictionary of Education*, teacher education means all the formal and non-formal activities and experiences that help to qualify a person to assume responsibilities of a member of the educational profession or to discharge his/her responsibilities more effectively. This unit discusses the meaning, significance and development of teacher education and evaluates its aims and objectives at elementary, secondary and tertiary levels, while also explaining the various agencies of teacher education.

1.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Assess the meaning and significance of teacher education
- Analyse the development of teacher education in India
- Evaluate the aims and objectives of teacher education at elementary, secondary and tertiary level
- Explain the various agencies of teacher education

1.2 MEANING AND SIGNIFICANCE OF TEACHER EDUCATION

Some of the qualities of a teacher include:

- Passion for teaching
- Clear objectives for lessons
- Good communication skill
- Effective classroom management styles
- In depth knowledge of subject matter
- Patience and confidence
- Dedication
- Love for their subject
- Flexibility and tolerance
- Creativity and humour

A close analysis of the qualities of teacher reveals that teaching is a complex process and, therefore, teachers should be trained from time-to-time. Before describing the nature of teacher training, let us try to understand the meaning of teacher education in detail.

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According to UNESCO (2005), teacher education 'addresses environmental, social, and economic contexts to create locally relevant and culturally appropriate teacher education programmes for both pre-service and in-service teachers'.

Teacher education generally includes four elements—improving the general educational background of the trainee teachers; increasing their knowledge and understanding of the subjects they are to teach; pedagogy and understanding of children and learning; and the development of practical skills and competences. The balance between these four elements varies widely.

Also, teacher education institutions have the potential to bring changes within educational systems that will shape the knowledge and skills of future generations. Teacher education institutions serve as key change agents in transforming education and society, so such a future is possible.

Teacher education institutions:

- Provide ample knowledge and educate new teachers
- Provide professional development for practicing in-service teachers by updating their knowledge and skills
- Create teacher education curriculum which suits national goal
- Initiate research works related to the area concerned
- Contribute to textbooks
- Provide expert advice to local schools upon request
- Provide expert opinion to provincial and national ministries of education
- Educate and certify headmasters, principals, and other school administrators

Teacher education helps teachers to increase their competence and proficiency to meet the professional challenges and professional requirements. Different countries provide teacher education programmes at different levels. For example, teacher education for primary teachers, secondary teachers or higher secondary teachers, teacher education programmes for physical education teachers, music teachers, and art teachers. Generally, any teacher education programme includes three different levels as given below:

- Initial teacher training/education (a pre-service course before entering the classroom as a fully responsible teacher)
- Induction (the process of providing training and support during the first few years of teaching or the first year in a particular school)
- Teacher development or continuing professional development (an in-service process for practicing teachers)

Teacher education programmes generally includes the following functions:

- Acquiring, organizing, producing and using a wide range of materials for research-oriented teaching and learning
- Applying the theoretical bases of education to the practice of teaching

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- Assessing and evaluating learning progress and personal development
- Communicating and interacting effectively with people in a variety of learning environments to provide meaningful learning experiences
- Meeting the requirements of students and providing feedback to parents and other professionals

Generally, teacher education encompasses the following components as shown in Figure 1.1.

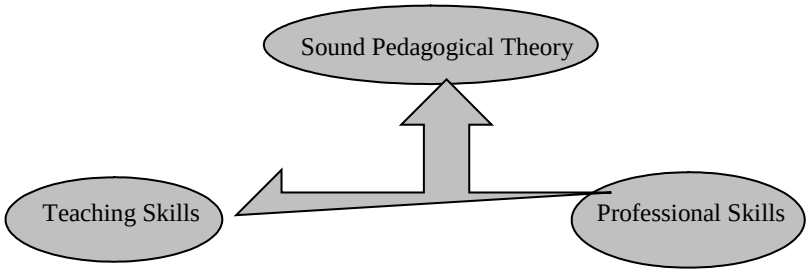

Fig. 1.1 *Components of Teacher Education*

1.2.1 Meaning

Given below are the meanings of these components:

- **Teaching skills:** While a teacher is teaching, he/she makes many tactics and strategies such as introducing the lesson, asking questions in between, giving reinforcements to gain students' attention. It is the duty of the teacher to internalize these skills which would help them to handle the teaching-learning process better.

  So, teacher education would include imparting training and practice in the techniques and strategies that would help teachers to plan, to impart instructions and conduct assessments effectively. Through training, the teachers also learn effective classroom management skills, use of instructional materials and good communication skills.

- **Sound pedagogical theory:** The second component of teacher education is the sound base of various philosophical, psychological and sociological theories which have great impact in teaching-learning process. A teacher is expected to know the sociological theories behind teaching-learning, philosophical theories (for example, naturalist and pragmatist) various psychological theories like reinforcement theory, and theories of learning.

  Therefore, pedagogical theory is based on psychological, philosophical and sociological aspects that would help teachers to have a sound basis for using teaching skills in the classroom.

- **Professional skills:** This includes strategies, techniques and approaches that will help teachers to improve and grow in their profession and at the same time, help the profession of teaching grow. Soft skills, computer skill, counseling skills, management skills, and interpersonal skills are part of teacher education.

Teacher education is a combination of the three components mentioned above, which after better training help teacher educators to develop the right kind of skills, beliefs, caliber, attitude and other skills required to become a better teacher. Hence, teacher education can be treated as formula containing three terms, i.e.,

Teacher education = Teaching skills + Pedagogical theory + Professional skill.

1.2.2 Nature

We have studied the concept of teacher education. In teacher education, focus is on giving training to students in core components such as teaching skills, pedagogical theories and professional skills. Unlike any other professional programmes, teacher education has its own procedures and nature. They are:

- Teacher education programmes are continuous in nature, which means it starts with orientation followed by practice session, and finally, updation of the skills developed as part of the training programme. Generally in India, teacher training programmes are conducted for one year and then service programmes are conducted while they are in service.
- Teacher education is broad and comprehensive in nature. It includes pre-service, in-service and other extension activities such as community involvement programmes, adult education programmes and other non-formal education activities. The depth and objective of each programme varies and finally prepares a worthy teacher.
- Teacher education is dynamic and ever-evolving. The role of teachers in the tenth century was entirely different from that of a teacher in the twenty-first century in terms of style, method and procedure, and aims. Skills and capabilities of tenth century teacher will not be sufficient to meet the demands of the twenty first century. Hence, teacher education programmes are dynamic in its objectives, methods, programmes and its style of execution.
- Teacher education is both an art and science. Teacher education moulds prospective talented teachers through scientific mode of professional training programmes. Hence, teacher education programmes are considered both an art and science.
- Teacher education has well designed curriculum, structure organization and transaction styles. These components are the crux of teacher education.
- Teacher education is based on the theory that teachers are made and not born, in contrary to the assumption that teachers are born, not made. In present scenario, teachers are made and not born. Previously, students who had passion for teaching took up the job of a teacher, but today any one with/without passion can get a teacher education degree.
- Teacher education's curriculum has sound meaningful theoretical bases which suits the practical situations at a later stage. These theoretical bases are derived from various psychological, sociological and philosophical theories on education.

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- Teacher education is now divided into stage-specific programmes. This means that knowledge base is divided across various stages which could be developed effectively to prepare entrant teachers to perform their duties as expected.
- Teacher education unlike in other systems has a three phase interrelated and interdependent components, viz, inputs, processes and outputs. Input being the theoretical base, process being the training programmes and output being the development of worthy teachers useful for the society.

1.2.3 Aims and Objectives

Teacher education programmes are carried out to provide wide range of objectives at various levels starting from pre-primary to higher secondary. Pre-primary teacher education focuses on pedagogical aspects and on how to deal with the psychological development of elementary students. The complexity of both these concepts increases and are dealt in teacher education programmes for higher secondary students.

A dedicated teacher community has to be developed who will be responsible to the students and to the nation as a whole. These teachers must develop the caliber to prepare students to be able to fight and exist in the over complicated twenty first century. Keeping these points in view, following are the objectives of teacher education:

- It is done to develop sound knowledge in psychological, sociological and philosophical aspects of education at various levels.
- It is done to provide necessary support services to teaching-learning process as a whole.
- It is done to provide adequate opportunities to observe, engage with students and to communicate with children.
- It is done to provide opportunities for assimilation and articulation of new ideas, develop capacity for self-learning, increase the ability to think and be self-critical and be able to work in groups.
- It is done to provide opportunity for self-analysis and self-understanding, flexibility, creativity, innovation and motivation.
- It is done to provide opportunity to comprehend, understand and apply the knowledge in different situations.
- It is done to provide opportunities to develop professional skills in pedagogy, observation, documentation, analysis, drama, craft, story-telling and reflective inquiry.
- It is done to create better understanding of the student. Teacher training is a must as it enables the potential teacher to understand the student better. The knowledge of educational psychology helps the teachers in dealing with children scientifically. Untrained teachers not familiar with the subject may create problem children in the school.
- Teacher training builds confidence in the potential teachers. A trained teacher can essentially face the class with confidence. He/she is not

timid or shy and can tackle many odd situations and does not avoid problematic situations.

- Through training, the future teacher become familiar with the methodology of teaching. Student teachers gets essential knowledge of methods required for a particular subject to be able to teach with flair and in an innovative style.
- It builds favourable attitude and helps in building favourable attitude towards teaching profession. During the course of training, many doubts of the teacher trainee's stand removed. It results in creation of love and respect for teaching profession.
- Teacher training programmes familiarizes the future teachers with all that is latest in education. An attitude of research and experimentation is attempted to be created in them.
- It makes the students familiar with school organisation. During the course of training, the teacher trainees are familiarized with the organisation and administration of the schools. It is of immense use to them in later life.
- It creates social insight. Teacher training is must as it is required to teach the teachers to live a community life. Training is essential to create social insight in them.
- Training improves the standard of the student teachers. A trained teacher can be a great help in improving the quality of education and also in checking wastage.
- Training is a must to produce teachers who can teach with zeal and zest and can strengthen the democratic set up of the country. Training is required not only with the sole aim of making one a good teacher but also making him/her a good citizen.

1.2.4 Need for Teacher Education

Teacher education programmes depend on the constitutional framework and social requirements of the country. A country like India has developed teacher training programmes which meet the requirements at various levels, i.e., pre-primary to higher secondary. Curriculum and syllabus of teacher education programmes varies as per the need and requirement at these levels.

The need for teacher education is felt due to the following reasons.

- The core concern of teacher training programmes is to develop sound knowledge in subject areas at various levels. It is noticed that subject content of various subject differs from pre-primary to higher secondary. So as to develop subject knowledge, professional programmes are required. Internalizing subject knowledge helps to organize variety of learning experiences.
- Students are the core component of classroom teaching. Students' cognitive, social, physical, and emotional developmental stages must be

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well understood to conduct meaningful teaching-learning process. Teacher training programmes provide the necessary knowledge in these areas. This helps in academic achievement of students.

- Classroom atmosphere is a place where we meet students from varied backgrounds like caste, creed, sex, colour, religion, region. Teachers should develop the skill in handling diverse group of students. Each student is unique in learning. Various learning styles of the students should also be catered to meet the learning styles of the students of a particular class.
- Teachers should develop the ability in designing instructional plans to meet the students' needs, curricular goals and models, subject matter, and community. Sound pedagogical knowledge should be developed to promote students learning, which help students in critical thinking, problem solving skills and reflection.
- Classroom environment varies at various levels of education. To meet the necessary requirement of classroom, teachers should be prepared to tackle the situations in the classroom.
- Teachers should be able to promote among students qualities like social interaction, cooperation among others, study habits and self-motivation.
- Teaching-learning process being a complex task, teachers should be well trained in adopting latest technological instruments, communication skills, non-verbal skills and written skills, which enhances the learning of students.
- Assessment is an unavoidable component in any teaching-learning process. Student learning increases by using proper assessment techniques. Teachers should be aware of the varied assessment techniques. Assessment of teaching improves both quality of teaching and learning.
- Learning helps students in developing their personality, to be active member of the society and to meet challenges. Teacher education should be channelized to meet these requirements of the students.
- Transmission of culture of the country can happen through well-trained teachers. Teacher education should provide with the necessary skill to transmit the culture of the country.
- It should meet the educational as well as the national goal of the country.
- It should be done to develop proper professional attitudes and calibre among teaching community.

1.2.5 Scope of Teacher Education

Teacher education in India has undergone a lot of changes. Teachers have to focus on the changing global scenario. Accordingly, it is important that they have a global view of new trends, strategies and new practices which could fit into the national goals of education.

Consequently, the emerging structures and designs of the curriculum shall lay greater emphasis on the ideas, practices and experiences that have emerged in

India through the contributions of thinkers like Mahatma Gandhi, Vivekananda, Rabindranath Tagore, Zakir Hussain, Sri Aurobindo, Giju Bhai and many others. Teacher education should itself transform to meet these challenges and provoke us to remove the old traditional methods of teacher education at various levels. The scope of teacher education includes the following points:

- It prepares teachers in facilitating the physical, mental, moral, social, ethical, aesthetic and linguistic development of the child by acquainting them with the knowledge of child psychology.
- It cultivates the habit of excellent caring practices in teachers to look after future student generations of the country.
- It helps to practice and organize varied learning experience which promotes creativity, motivation, and self-reflection in student community.
- It helps empower student teachers towards creating learning readiness among young learners.
- It helps acquaint student teachers in developing different methods and skills in taking care of the special needs of the children.
- Communication skills are one of the important skills of a teacher in teaching-learning process. Teacher education programmes help them to acquire strategies of communication.
- It helps come up with innovative techniques to improve the quality of teaching by conducting action researches on relevant areas.
- It helps to establish mutual supportive linkages with society, teachers, institutions and other agencies which have indirect role in students' learning.
- It helps to prepare students to become worthy members of the society and to develop the knack of socialization.
- It helps to develop the skills of counseling and guidance.
- It helps to equip them to acquire competencies relevant to stage specific pedagogy, curriculum development, its transaction and evaluation.
- Teacher education prepares teachers to master skills and techniques to handle students at various level namely pre-primary, primary, elementary, secondary, higher secondary, physical education and education of children with special needs.

1.2.6 Teacher Training vs Teacher Education

The words 'teacher education' and 'teacher training' have been used interchangeably. Is there any change in the meaning of the words? What is the difference in the words? Let us reflect on this concept and then move on to the development of teacher education programmes.

The term teacher training is being used traditionally since a long time for all teacher preparation programmes. Literally, training is a 'well-organized activity with

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objective of imparting clearly set instructions or pre-decided activity to improve the receivers performance or make them to achieve certain level of knowledge or specified skill'. Training is the continuous activity provided to individuals/group to increase productivity and enhance performance of the people concerned. Training is learning of specialized skills to perform certain specified tasks. For example, carpentry is specialized activity which requires trained skills to perform and succeed in carpentry works.

Training basically improves the performance of special skills and, therefore, different training methods exist, namely:

- **Orientation training:** To impart basic knowledge of task selected
- **Safety training:** To understand methods in safety measures
- **Promotional training:** To internalize knowledge for higher posts
- **Refresher training:** To get knowledge in latest trend in the job
- **Job training:** To understand the special skills needed for a job
- **Remedial training:** To overcome the deficiencies needed for particular job
- **Internship training:** To get practical knowledge in the job selected

From the different types of training it is understood that any profession or job requires special skills and techniques to perform at the desired level. To succeed in any kind of job, an employee or a person needs to be trained in the skills needed especially for that kind of job. In teacher training, the traditional style was to impart knowledge in instructional method of teaching.

The main component of any teaching-learning process is the way of instructional styles followed. As we know, in ancient India, the style of education was concentrated on oral method, which implies teachers had to be proficient in oral method of teaching. Oral method of teaching requires the oral skill of explaining the subject content. In this regard, traditional teacher education programmes focused on imparting skills of oral instruction and, hence, teacher education programmes was traditionally known to be 'teacher training'.

Although people outside the education field may use teacher education and teacher training interchangeably, education theorists distinguish the terms clearly. In the context of teacher preparation, training corresponds to learning real-life classroom skills while education refers to more abstract knowledge about modes of learning and instruction. When referring to the process of preparing future teachers, education specialists find 'teacher education' more consistent with the idea of developing versatile, reflective practitioners with a wealth of professional knowledge. The two terms are explained in details below:

- **Training**: In education theory, training refers to acquisition of concrete skills for meeting specific goals in a real-life applied situation. This often includes 'closed skills', like typing or juggling, that have absolute ceiling on mastery or where the only way to improve the skill is to do it faster or while multi-tasking. For teachers, training might include how to maintain a grade book or calculate reading fluency scores.

- **Education**: In contrast, education focuses on more abstract knowledge and open-ended concepts, like the ability to design factory equipment or write poetry. Open skills rely on abstract understanding and have no absolute ceiling on performance. Examples from teaching include how to design an original lesson plan or promote critical thinking. This distinction is subtle since abstract concepts can empower students to meet real-life goals, similar to training.

Furthermore, training in concrete skills can foster understanding of an underlying concept, similar to education. Some theorists distinguish education from training based on intention. Education aims to improve the mind while training aims to improve performance. In many cases, education and training go hand-in-hand.

In instill skills, attitude, knowledge and different styles of behavioural pattern are inculcated in the people concerned. According to this, teacher training is needed to become an effective teacher. As we discussed, teacher training concentrates on imparting training skills in oral instruction, which help teachers to carry out an effective teaching-learning atmosphere inside the classrooms.

But, the classroom scenario is experiencing a smooth and steady change. Oral instruction is being replaced with other efficient instructional strategies like integration technological instruments and other innovative delivery systems. Meanwhile, the scope of teacher education has experienced a widened scope. The scope of teacher education influenced the method of training in teacher education programmes. Slowly, the terminological term from teacher training has been replaced with 'teacher education'. At present, the teacher preparation programmes are commonly known as 'teacher education' programmes.

Teacher education is a more complex and comprehensive term which includes providing training and knowledge in many aspects such as theoretical concepts of teacher education, practical aspects of training, training of modern instructional strategies in teaching-learning process, giving variety of opportunities in student learning, understanding psychological theories, understanding modern principles of teaching-learning, use of technological instruments, participation in co-curricular activities, understanding of recent trends and developments in education and so on. Compared with the traditional teacher- training programmes, teacher education has moved ahead and is more suitable for the present scenario.

The apex body of teacher education, National Council for Teacher Education (NCTE) defined teacher education as 'programmes of education, and research on training of persons to equip them to teach at pre-primary, primary, secondary and senior secondary stages in schools, and includes non-formal education, time education, adult education and correspondence education'.

A close analysis of this definition and the developmental stages of teacher education programmes (explained in the succeeding sections) will help us to realize that teacher education has a broader aim such as training in instructional methods plus practical application of theoretical components, understanding instructional strategies for various stages from pre-primary to senior secondary, in-service programmes, training through distance mode of education, correspondence style of

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education, part time education, and knowledge on physical education. Developing a firm understanding of these concepts will encourage effective future teachers to accomplish the aim of education and in turn will meet the national goals of the country.

Teacher education as any other professional programme must be thought of in new dimension in its scope and aim. The twenty-first century provides ample opportunities for development of all round personality even without education. Students get opportunity to reflect upon themselves in various situations. They reflect upon themselves and act accordingly. What is the role of education then? Apart from training in teacher preparation, the broad scope of teacher education includes:

- It means utilization of human resources to its maximum. Human resource includes both teacher and student. Through education, the maximum output of either category are channelized.
- It means development of human resources. In teacher education programmes the skill and caliber of student teachers is focused to bring out maximum efficiency in teaching-learning process.
- It means development of skills of student teachers and increase of productivity.
- It means maintenance of quality and efficacy.
- It means building healthy and proper work climate.
- It means developing morale among the pupils concerned.

CHECK YOUR PROGRESS

1. Name the three components of teacher education.
2. What does pre-primary teacher education focus on?
3. What is the core concern of teacher training programmes?
4. What does oral method of teaching require?

1.3 DEVELOPMENT OF TEACHER EDUCATION

As a teacher-education student, you are supposed to develop firm understanding on the developmental stages of teacher education before and after Independence. As you know, there was a gradual development in teacher education programmes from the period of the Upanishad around 1400-600 BC to the twenty-first century. When the Upanishad was written, the teacher enjoyed high privileges, but as time passed, the dignity and power of teachers declined. Emergence of globalization, social concerns and privatization has led to the reduction of market value of teachers. In this section we will study the developmental stages of these characteristics under two heads, i.e.:

- Teacher education in pre-Independent India (2500 BC-AD 1947)
- Teacher education in post-Independent India (AD 1947-AD 2013)

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1.3.1 Pre-Independent India

Teacher education in India starts with the Vedic Age and ends with the modern period. A detailed discussion on the nature of teacher and its development in various periods are described below:

Vedic Period

In the Vedic period, religion played a prominent role in education. The aim of education then was to attain salvation (*Moksha*). While receiving education, a person was supposed to engage in *karmopasana*, i.e., work of worship and, thus, purify the inner senses and gain the absolute (Brahma). The soul forgets the absolute due to ignorance and illiteracy and so thinks itself as one who is neither born nor dies and suffers in miseries.

The literal meaning of 'Vedas' is knowledge. Hence, Vedas refer to various forms of knowledge. There were four different types of Vedas, namely, Rig Veda, Yajur Veda, Sama Veda and Atharva Veda. These four Vedas represent different bodies of knowledge. Students of the Vedic period were supposed to internalize these Vedas from teachers, who were called *gurus*. The knowledge was transferred to students by the gurus mainly through verbal medium and students were supposed to repeat it.

The students internalized different concepts either through mediation or realization. Once this process was completed, students internalized different bodies of knowledge and they reached the stage of realization.

Chief characteristics of Vedic education are:

- *Gurukul*
- Ideal of guru
- Duties of *shishyas* (students)
- Relation between guru and shishyas
- Education
- Women education
- Physical education

Teachers of Vedic Age were men of high calibre in terms of knowledge and spiritual progress. Gurus maintained high reputation in the society. They always paid attention in transmitting knowledge to the *shishyas* in *gurukuls* (place were classes were conducted). Gurus considered their *shishyas* as their sons and *shishyas* treated gurus as their father. Gurus helped in the all-round personality development of their shishyas. Gurus also tried to impart education to women and also imparted training in physical education, and art and craft. Gurus helped in accomplishing the needs of all their students.

Teachers occupied a pivotal position in the Vedic system of education. The teacher was a parent surrogate (parent substitute), a facilitator of learning, exemplar and inspirer, confidant, a friend and philosopher, moral educator, reformer, evaluator,

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character and personality developer, importer of knowledge and wisdom and above all a guru—a religious and spiritual guide.

The relationship between the teachers and pupil was regarded as filial in character. A teacher was the spiritual father of his pupil. In addition to imparting intellectual knowledge, gurus were also morally responsible for their *shishyas*. He was to always keep a guard over the conduct of his *shishyas*. Gurus were expected to instruct their *shishyas* how to sleep and what food eat and not eat. During the Vedic period, learning was transmitted orally from one generation to another. Great importance was attached to the proper accent and pronunciation in the Vedic recitation and these could be correctly learnt only from the lips of a properly qualified teacher. The spiritual solution depended almost entirely upon the proper guidance of a competent teacher.

Upanishad Period

The period Upanishad is between 1400 BC and 600 BC, from the end of Rig Veda period to the beginning of Buddhism and Jainism. In Upanishad period, after the spread of Vedic culture, the sacrificial rituals dominated and the Brahmin priests had the highest position in society. Accordingly, different ritual duties came into existence along with theoretical knowledge. Also the priests were divided into different categories like *hotri, udgata, adhwarya* and brahmanas. As in the Vedic period, education was for attaining the absolute (*Moksha*). Practical knowledge in subjects such as physical science, handicrafts, arithmetic, astronomy were also imparted. The aim of education was:

- To enable realization or true knowledge and achieve the absolute
- To meditate and think

In accomplishing the aim of education, gurus played a major role. The teachers during this period were held in high esteem and a job of a teacher was considered a high class job. Since gurus enjoyed special status, the selection of guru was rigorous and followed a strict process. These gurus were appointed to enlighten and to wipe off darkness from the society.

During education, students were made to sit at the feet of the guru, and the gurus recited the lesson to the students. Upanishads describe the *Para Vidya* (physic knowledge) and this knowledge was considered to be above all knowledge since it enables the unity of soul and absolute. The study of the Upanishad helped students to reach self-realization. However, education was limited to the upper castes of the society. As in the Vedic period, women were also permitted to study. The three methods of teaching in Upanishad period were:

- *Sharvan* (learning)
- *Manan* (mediation)
- *Nidisdhyasan* (realization and experience)

According to Rig Veda, a teacher was selected and then educated or trained and was expected to have passed the recognized curriculum and fulfilled all the duties of a Brahmachari. Teachers were supposed to seek knowledge for realization.

They were highly respected. In due course, the scholarly class came to be known as Brahmans and teaching became a hereditary profession for them.

During this period, the relationship between the teacher and disciple became very intimate. The word Upanishads connotes 'sit close'. Teachers had the freedom to choose their disciple and once the disciples were chosen, it became the moral duty of the teachers to take care of their disciples. Knowledge during this time was orally transmitted and explanation was the most important way of teaching. The disciples were expected to emulate their teachers and this learning was passed from one generation to another.

Good teachers devised innovative methods of teaching to make the lessons interesting and meaningful. Listening to the spoken words, comprehension of meaning, reasoning leading to generalization, confirmation by a friend or a teacher and application were the five steps to realize the meaning of a religious truth practiced in ancient India.

Brahminical Period

During Vedic education, students were supposed to perform 'Upanayan' at the age of four to nine, thereafter, they were sent to *Gurukuls* for brahminical education. Brahminical period is notable for learning brahminical education, whose chief characteristics were:

- Religious elements
- Character building
- Development of personality
- Self-reliance
- Self-control
- Beginning of education at appropriate stage
- All round development
- Social ideals

The students were sent to *gurukuls* like in Vedic period and students sat with the gurus to gain knowledge. Education was provided to develop character and an all-round development of the students. The responsibility of boarding and lodging of the student was given to the gurus. 'Individual system of education' was followed in *gurukuls* where the students studied different subjects and in addition had to perform duties like grazing cows, fetching wood from forest, and begging for alms. The instruction was mainly oral, through which students learnt *ithihas* (history) and *puranas* in addition to Vedas and Vedanga. The motto of education was 'simple living and high thinking'.

Buddhist Period

During the Buddhist period, no educational institutions were present, instead religious centres like monasteries and *viharas* were the places where education was imparted. *Gurukul* system in Vedic period was replaced with 'sangh'. Like Upanayan

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ceremony, students performed 'pravrjya' before entering a sangh. After the completion of ten years, a student had to stay back as a monk (*bikshus*) in the Sangh for the rest of their life. Buddhist period was marked by two types of education—primary (included reading, writing and arithmetic) and higher education (included philosophy, Ayurveda, military training). Students were given full freedom to select their courses of study. Some of the subjects during Buddhist period included teachings of Budha vinaya, and dharma.

The teachers in the sangh were required to have spent at least ten years as a monk and to be compassionate and generous. Both the student and teachers were responsible of the monastery but the teacher had the sole responsibility of education, food and clothes of their students. The teachers had to look after and treat their students in case of sickness.

The teachers were required to teach, write books, propagate religion, hold discussion and debates. The teachers were responsible for physical, mental, spiritual and moral development of the students. The teacher was regarded as spiritual father or intellectual father of the student.

Medieval Period (AD 1200-AD 1700)

Invasion of the Muslims paved the way for Muslim education in India. Even though Muslim education came into existence, some parts of the country still had the brahminical system of education. The Muslim rulers of the medieval period had shown more interest in political affairs than spread of education.

The Muslim rulers started education by opening educational centres called *Maktabas* (schools) and *Madrasahs* (colleges). *Maktabas* were centres of primary education, which provided knowledge in basic concepts like alphabets, reading, writing and simple arithmetic, religious instruction. The *madrasahs* catered to the needs of higher education which taught grammar, rhetoric, logic, theology, metaphysics, literature, jurisprudence and sciences. Education started with a ceremony called *bismillah*, imparted by the teacher *Moulavi*. After the completion of education in *maktaba*, students enrolled in *madrasahs* for higher education, where lectures on higher education were given by eminent teachers/lectures. Many teachers were appointed in these *madrasahs* by the state to impart education to the students. The rulers of Tughlak dynasty provided financial assistance for the running of *madrasahs*.

Muhammad Ghori took interest in opening mosques and colleges at Ajmer to train teachers, precepts of Islam and teachings of Mohammeden law. Muslim ruler Firoz Shah Tughlaq had shown interest to provide financial assistance to these educational centres. Similarly, Akbar opened many madrasahs during his period for higher education.

During this period, the method of teaching in *maktabas* and *madrasahs* were oral and the *moulvies* enjoyed high respect. They were entrusted with the duty of teaching students. They were respected by the society and students. Past references show that no specially designed teacher-training techniques existed in the medieval period. Arrangements like food and lodging were provided to the teachers of medieval period. So as to reduce the burden of work of teachers, students of higher classes

were entrusted to teach the students of lower classes. Students were provided ample freedom to develop themselves during this period. Much care and investment were made for the growth of education in the medieval period.

Modern Period (AD 1700-AD 1947)

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The modern education system started with the arrival of Christian missionaries in the country. The Christians came to India to establish trade relations with the country. Later on, they became the rulers of the country and started the modern education system. The credit of education of modern India lies with the Christian missionaries.

Before the arrival of British, Christian European missionaries and Danish missionaries started the basic work to provide teacher training courses in the country. The Danish missionaries started a school at Tranquebar in Tamil Nadu to train teachers in 1716. The teachers passing out from this school were appointed as teachers in primary schools. Danish missionaries started another school in Serampore in West Bengal in 1793. Both these institutions took interest in providing training programmes to teachers.

These institutions followed monitorial system (or the pupil-teacher method of training) to design the teacher training programmes which were later accepted as the adoption method to appoint presidencies under British rule. This system was known to be 'Bell-Lancaster System' named after Andrew Bell, Superintendent of Schools, established by the British government. His thoughts and ideas were implemented in teacher education programmes.

Later on, educational societies came into existence at major places like Bombay, Madras and Calcutta and one teacher training institution was also set. The annual report of presidencies says the agencies like Calcutta School Society (Calcutta Presidency), Madras School Society (Madras Presidency) and Native Education Society (Bombay Presidency) played remarkable role to train teachers. The Native Education Society of Bombay formed in 1815 provided training to twenty-four teachers and were sent to different parts of the country as 'organizers' to improve the quality of teaching at elementary level.

Similarly, Calcutta School Society formed in 1849, made a remarkable contribution to train teachers of elementary level. This was appreciated by East India Company by providing a grant of 500 per month to encourage the contributions of Calcutta School Society. Efforts were taken by Calcutta School society to train women teachers of the province. Later, more training centers were set up. Similarly, the then Governor of Madras, Sir Thomas Munro, sanctioned a grant to Madras School Society to train teachers under his province. This job was successfully completed by the Madras School Society.

During the early periods of the British rule, enormous formal schools came into existence and the need for teacher training was drastically felt. Lord Macaulay's *Minute of 1815* on judicial administration of the presidency of Fort William recommended the need of teacher training, which is considered as the first document to recognize the need for teacher training in the British period. As a result, many schools were set up in different parts of the country like Surat, Pune and Calcutta.

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To train teachers, a number of teacher training centers were also set up in places like Meerut, Madras and Agra and by 1824, twenty-six teacher training centers were opened at different corners of the province. From 1815 to 1854, the demand of teacher training considerably increased and it was reflected in the policy making process of different provinces.

In 1826, Sir Thomas Munro had initiated steps to establish teacher training schools in every collectorate (district headquarters of the government) known as principal schools. By this suggestion, he expected that there will be continuous training of teachers and the shortage of teachers can be solved to a large extent. He also expected that there would be one principal school for 300 tehsils under his presidency. Similar steps were adopted by different rulers. The secretary of Bombay in 1845 opened a normal class in Elphistone institution. This was opened for fourty primary teachers which included fifteen Marathi, fifteen Gujarati and ten Kanarese.

Training for three years was provided to these groups. The Poona Sanskrit College and Poona English Schools were merged in 1851 to develop Poona College to provide training to teachers. Training in teaching methods, psychological strategies and other pedagogical methods were conducted at this college. At the same time, the English School at Surat opened a normal class to train Gujarati teachers. The main aim of these institutions was to train teachers at various levels and to equip them as future teachers useful for the state.

Wood's Despatch, 1854

Wood's Despatch is a major landmark in the history of education in the country and, hence, also called 'Magna Carta of English education in India'. This document was published in 1854 and recommended a good number of suggestions in the improvement of education of the country as well as the prevailing teacher training programmes. Wood's Despatch has laid foundations for the establishment of university system in India and opened Department of Public Instruction in the provinces of Punjab, Bengal, Madras, Bombay and North-west.

For the first time, Wood's Despatch emphasized the importance of teacher training and the need for improving the quality of teaching. Not only the need for teacher training, it has given due consideration to the facilities provided to the teacher including salary structure and facilities for teacher training. Wood's Despatch recommended the opening of teacher training institutions at each Presidency so as to make teaching job attractive to the public. It recommended grant in aid in the form of scholarship and salary to be increased for those who attended the training programme. Wood's Despatch framed the outline for selecting teachers, training of teachers, place of training, placement after training. It emphasized the need for modification in the monitorial system of training, the stipend provided to the teacher trainees and employment of teacher trainees after the training period.

In suggesting a change in the education of teachers, the Wood's Despatch referred to the system prevalent in England.

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Lord Stanley's Despatch, 1859

The recommendation of Wood's Despatch was followed and strengthened by another despatch known as Lord Stanley's Despatch of 1859. Many policy makers and rulers of the country failed in practicing some of the recommendations of Woods Despatch and Lord Stanley expressed his concern over this and came up with new recommendations. During this period, the grant in the form of scholarship given to teacher trainees was considerably increased. More teacher education training institutions came into existence during the period from 1881 to 1882. Similarly, the number of normal schools increased to 106, of which fifteen were exclusively reserved for the women of the country. A total of 3886 teachers got trained from these institutions. An amount of one lakh was kept aside to meet the expenditure of teacher training programmes which was a considerable amount at that time.

Those who had primary education were given admission to teacher training programmes. The rules and procedure of teacher education was not rigid, so as to attract more number of students teachers. To attract more women to the field of teaching profession there were no admission criteria for women. The methods and procedures carried out during the process of teacher training were so simple that it motivated teacher trainees to continue the course and complete it successfully.

The students were provided financial assistance in the form of stipend. The initial period of teacher training followed monitorial system (pupil-teacher) then later replaced it with 'system of apprenticeship', where students were placed under the custody of an experienced teacher for a particular duration of time. After completion of apprenticeship, they were placed in District Training Colleges to get training for a short duration and to get the certificate of 'trained teacher' which certified the students that they were qualified to teach in primary schools.

In the initial stages, teacher training was arranged for teachers at elementary/ primary level. Later, it was extended to middle and secondary level. The Government School, Madras, started in 1856, and Central Training School started in 1877. In 1886, the first training college for secondary teachers was established in Madras followed by the Nagpur Training School in 1889.

Indian Education Commission (1882-83)

The commission known as Indian Education Commission or Hunter Commission was appointed by Lord Rippon and Sir William Hunter to study the education system prevailing in the country submitted their report in 1882. The commission emphasized the need to open more normal schools to train teachers. They suggested opening at least one normal school under a divisional inspector. The pattern of curriculum followed by the institutions was different from each other. The commission had given freedom to provinces to select their own syllabus and curriculum that suited their situation and need.

Apart from pedagogical theory, practical classes were organized as part of teacher training. Physical sciences and their relation to medicine, agriculture, and book keeping, were some of the subjects taught apart from theoretical subjects. The commission suggested opening training centers separately for elementary and

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secondary school teachers. They also emphasized that the subjects to be taught for secondary school teachers should be rich in content than the courses for elementary teacher training. They suggested that teacher training at secondary level should conduct practice teaching to make the students aware about practical situations of real teaching.

The recommendations of Hunter Commission expanded the scope of teacher training institutions in modern India and as a result, teacher training colleges were set up at Allahabad, Lahore, Madras, Kurseong and Rajamundry. Out of these colleges, the colleges at Madras and Rajamundry were created by upgrading the normal schools. The college at Madras was set up exclusively for teacher training programmes of secondary school teachers. By the end of the 19th century, some essential things in teacher training had been established. Pedagogical courses had replaced general education, examinations and certificates in teacher training had been instituted and practical aspects in planning and teaching were emphasized.

At the start of twentieth century, more and more teacher training schools opened in the country. The admission criteria, duration of the course varied from place to place. For example, teacher training course at Jabalpur College was for two years but in other places, it was of one year. Teacher training programme at elementary level had two year duration in Uttar Pradesh while four years in Assam.

In Madras and Bengal, training centers were set up exclusively for training teachers of elementary and secondary level. College at Madras and Bengal concentrated on content-cum-professional course pattern of teacher training. The normal school started converting to training centers for teacher courses. The ownership of teacher centers were distributed even to private parties and hence, the end of nineteenth century is marked by the emergence of teacher training organizations under private sector.

The beginning of twentieth century is marked by the remarkable contribution of the then Viceroy Lord Curzon, who took keen interest in the development of education and teacher education in the country. He appointed a commission to enquire about the working pattern of the universities of the country, standard of education provided by the universities and so on. As a result, the commission came up with Universities Bill in 1903 and suggested possible solution to improve the quality of teaching at the university level.

In 1904, government resolution on educational policy was published. The educational policies of Lord Curzon emphasized the need of teacher training in the country. It recommended to complete the training of teachers in the 'art of teaching', a prerequisite to improve the quality of teaching. The commission suggested setting up of practicing schools near the training colleges for conducting practice teaching as part of the training to develop behavioural skills in practical situations. It believed that the theory and practical component of teacher training courses should be properly linked to bridge the gap between theory and practical situations of real classroom atmosphere. It also suggested to provide one year teaching training programme for graduates and two year training for undergraduate leading to University degree in teacher training.

The recommendations of Lord Curzon showed the way to open more schools and teacher training institutions and practicing school were attached to these training centers. By 1907, universities started awarding teaching degrees, except Bombay University and UP. Bengal awarded L.T Degree and Punjab awarded B.T Degree in Teaching. In 1913, the Government of India published another resolution with major suggestion as 'no teacher will be allowed to teach without a certificate in teaching', which again emphasized the need for teacher training in the country. The resolution suggested that teachers should have passed the middle vernacular examination and undergone a year's training. It suggested periodical repetition and improvement of courses for teachers. As a result of this recommendation, more training colleges were set up but it failed to implement some of the recommendation due to the onset of World War I in 1914.

Calcutta University Commission, 1917

At the end of the World War in 1917, the Calcutta University Commission was set up to look into the quality of teaching in Calcutta University under the leadership of Sir Michael Sadler. This commission came to be known as the Sadler Commission or Calcutta University Commission. Even though the committee was appointed to review the working of university, it suggested remarkable recommendation on teacher education.

It recommended opening of a Department of Education in each university with a professor as the Head of the Department. It recommended the introduction of education as an optional subject at the intermediate, graduation and post graduation level. Sadler Commission recommended attaching an experimental school in addition to the practical schools, to provide opportunities to experiment various teaching methods, teaching skills, school administration, leadership qualities, etc. Practicing schools exclusively set opportunities for practice teaching.

Sadler Commission recommendations opened new universities in different parts of the country, like in Mysore, Patna, Banaras, Dacca, Aligarh, and Hyderabad, and some of these universities started with the establishment of Teacher Education Departments. Similarly, the number of teacher training colleges also increased in the country.

Hartog Committee, 1929

During this period, the freedom struggle movement was going through incidents like the Jallianwaala Bagh Massacre and the Khilafat Movement. Hence, the education system did not get much attention. The political situation and societal atmosphere was instrumental in the appointment of a commission headed by Sir Philip Hartog, called Hartog Committee of 1929. This Committee was especially appointed to review the education system.

The commission expressed its deep concern over the poor quality of primary education and the substandard quality of teacher training of primary teachers in the country. It was found that among the existing primary teachers, only twenty-eight per cent had their middle school education and forty-four per cent were untrained

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teachers. The commission suggested the following measure to improve the quality of teachers at the primary level. These were:

- Quality and standard of teacher training should be increased
- The duration of teacher training course should be more
- Adequate teaching faculty should be appointed in teacher training colleges
- In-service courses, refresher courses and conferences must be arranged for working teachers for professional growth
- Service conditions must be improved to attract and retain teachers in the teaching field

These recommendations brought new dimensional change in the teacher training and quality of teaching in schools. The need of professional course was emphasized by the committee to improve the teaching-learning process in schools. In rural areas, teachers who were aware of the rural culture should only be appointed was another comment of the commission. The level of education was a detrimental factor in duration of the course of teacher-training course. Accordingly, pre-primary and primary teacher training was of two year duration, three years for middle school training and two years for non-graduates in high school training course. The recommendations of Hartog Committee were adopted by the Central Advisory Board of Education (CABE) in 1943.

The impact of Hartog Committee helped thirteen out of eighteen existing universities to open teacher education departments by 1932 and in the history a new degree named B.Ed. was started by Andhra University and M.Ed. degree was started by Bombay University for the first time in 1936. Similarly, the Spence Training College at Jabalpur started preliminary research activities at B.T level. Hence, the recommendation really provided a new direction in the teacher training sector of the country.

Abbott-Wood Report, 1937

During the Second World War, the country was facing many political challenges. Abbott-Wood report was published at this time, which had indirect effect on the prevailing teacher education system of the country. The structure, procedure and the whole system of teacher education was studied in detail. It found that working conditions of teachers were miserable, especially for the teachers from rural areas.

To develop the quality and standard of teaching, refresher courses and conferences were recommended for working teachers and in training colleges. The report also recommended to start vocational teachers college. At the same time in 1937, Basic education was started by Mahatma Gandhi, leading to the training of teachers for basic schools. In 1938, a Basic Training College was set-up at Allahabad and the Vidyamandir Training School was started at Wardha in 1938. Gandhi's Wardha Scheme was child-centered education and it provided opportunity to students to earn while learning.

The new system of education had indirect effect on the training of teachers. Teachers had to internalize the teaching methods and procedures to teach students.

The success of this education rests on the shoulder of teachers who trained the students under Wardha Scheme. For the successful implementation of Wardha Scheme, two types of training curricula were introduced—short-term and long-term. Long-term training extended for a long period of three years but short-term period was for a short span of one year. During the training period, teachers were expected to stay in hostels attached to the training institutes since both were residential programmes. Later, the training system spread to other parts of the country.

The percentage of trained teachers improved from 56.8 per cent in 1937 to 61.3 per cent in 1942. Still, there was much to be done to improve the qualitative aspect. In 1941, there were 612 normal schools out of which 376 were for men and 236 for women. There were twenty-five training colleges which were inadequate and could not meet the demand. Vidya Bhawan teacher's College in Rajasthan and Tilak College of Education in Poona were started in 1941. Bombay was the first to start a doctorate degree in education the same year.

In 1941, the Vidya Bhawan Teacher's College was started in Rajasthan and the Tilak College of Education in Poona. Bombay took the lead in starting a doctorate degree in education the same year.

Sergent Report, 1944

As a post-war expansion of education after World War II, a new educational scheme called Sergent Scheme was submitted to the Government of India under the leadership of Sir John Sargent. This report is also known as Post-War Development Plan and was accepted by the CABE (Central Advisory Board of Education) in its meeting held in 1943. The report mentioned the education developmental structure and practices starting from pre-primary to university education. The scheme also made significant contribution to the field of teacher education by contributing the following ideals:

- There will be two types of teacher training institutions. One for those who have completed Secondary School Leaving Certificate, for a duration of two years and other for degree holders, the duration of which will be two years.
- Besides training in professional skills, teacher trainees would receive training in extra-curricular activities.
- Teacher training colleges should organize refresher courses, practical classes, training workshops and other professional conferences in addition to regular activities of the college
- Experimental and practicing schools should be set up to conduct research on various topics related to pedagogy.
- Teacher training should be free from fees, and stipend should be provided to trainee teachers. Teacher training colleges should also provide residential facilities to teacher candidates.
- Teacher training should be seen as residential programmes since residential programme help students to empower teaching skills fully.

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- The eligibility criteria for M.Ed. degree programme would be trained graduate with three years of teaching experience.
- The professor, school headmasters and inspecting officers, could be transferred from one place to other.
- Special teacher training programmes should be arranged for training of women to overcome the shortage of women teachers.

Sergent Report also recommended that boys and girls after high school can be inducted into the teaching profession. Training programmes should include practical training, refresher courses and research facilities. It suggested a two-year course for pre-primary and junior basic schools (after high school) and a three year course for these near basic schools. The graduates were then to go for one year training. The report suggested that the first year should be devoted to general and professional subjects along with school visits, discussions and other experiences to create interest in the trainees. It also proposed to revise the pay scale to attract better candidates.

1.3.2 Post-Independent India

After Independence, the Indian government made at lot of effort to spread education, which provided wide access to all sections of the society irrespective of caste, creed, religion, language and region. The quality of education improved after Independence in 1947. The expansion of education indirectly affected the training programmes for teachers in the country. The government considered teacher education as one of the core component which had direct roles in the nation building. The expansion of schools demanded the need of qualified teachers to meet the new demands of education.

The Indian government came up with new committees and commission to revamp the prevailing teacher education system of the country. The commissions put forward innovating policies and steps to strengthen the existing teacher education system. After Independence, as there was a great demand for teachers in the country, the commissions made teacher education accessible to large number of people. Similarly, the demand for in-service programmes was also highlighted to improve the efficiency and efficacy of working teachers.

The first commission appointed to review the prevailing education system was set up under the chairmanship of great educationist, Dr. S. Radhakrishnan, which is popularly known as the University Education Commission.

University Education Commission (1948-49)

Soon after Independence in 1948, the University Education Commission was set up under the chairmanship of Dr. S. Radhakrishnan to study education system of the country and the commission submitted its report in 1949. This document contributed significantly in improving the quality of education, in particular teacher education system for the next few decades. The Commission recommended to increase the duration of school education from eleven to twelve years and suggested degree courses after completion of schooling.

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Two year degree was replaced with three year course. General education was introduced with college programmes and recommendations were given to improve the working conditions of teachers across schools and, colleges and universities. There were to be three cadres of teachers in universities, viz, lecturer, reader and professor. Another suggestion was to introduce continuous and comprehensive evaluation system in the country as part of evaluation.

The Commission studied in detail teacher education procedure and stressed the need for reorganization of teacher training departments and training colleges. Some of the recommendations made by the commission are as follows:

- There should be balance between theory and practical component in teacher training programmes. Flexibility should be maintained in preparation of teacher education curriculum. Theory papers should be connected to real life situation.
- Teacher education courses should be modified such that more time should be allocated for evaluation of student performance.
- After theory courses, students given opportunity for practice teaching and training schools should be identified for the purpose.
- Students should be provided opportunities to involve actively in the daily activities of the school.
- Staff of the training colleges should be appointed from those who have experience of teaching.
- The curriculum and training course of teacher education should be adaptable and compatible to local circumstances.
- Admission to master education can be possible only after successful completion of some years of teaching experience.
- The commission was disappointed with the procedure and duration of practice teaching sessions of the programmes. It recommended keeping at least twelve weeks exclusively for practice teaching in one teaching teacher education programmes. It also suggested measures to overcome the difficulties caused by rising the duration of teaching practice sessions.
- It stressed the importance of research in the field of education. It strongly recommended implementing of research orientations and practices in teacher education to improve teaching quality.
- Recommended to conduct refresher course, seminars, workshops and other academic activities for working teacher during the vacation period. This must be organized by the universities, to help upgrade subject knowledge of teachers as well.
- The 'certified attendance at a university refresher course' once in four/ five years to be made compulsory for promotion of teachers in teacher education departments.

Recommendations presented by the University Education Commission were widely accepted and Universities started rewinding teacher education programmes

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by including more courses, giving due consideration to teaching practice sessions, curriculum revision and so on. Central Institute of Education, Delhi University, introduced the Psychology wing and they were given the responsibility to design related components of teacher training programmes like psychology tests, identifying and promoting research interest.

Till the time of University Education Commission, the terminology related to teacher preparation was 'teacher training' but soon after the second conference of Indian Association of Training Colleges at Mysore, the terminology changed to 'teacher education'. Now, teacher preparation programmes are commonly known as teacher education programmes.

Secondary Education Commission (1952-53)

After the University Education Commission, under the leadership of Dr. A. Lakshmanaswami Mudaliar, the then Vice-Chancellor of university of Madras, a new commission was set up in 1952 to recommend suggestions for the reform of the education system in the country. It was appointed to review secondary education system, but, as a part, it studied the teacher education system and came with innovative recommendation to improve the quality of teacher education.

The commission expressed in its report deep concern for the sub-standard and low quality teacher training programmes of the country and recommended to increase the duration of the programmes to two years. But, due to political reasons the authorities failed to implement some of the suggestion, hence they decided to continue the existing structure of teacher education with minor changes. The duration of the course remained one year but ample opportunity was provided for effective teaching practice sessions in the curriculum. To supplement the training programmes, innovative teaching methods, procedure in evaluation/assessment, new techniques for co-curricular activities, and specialized techniques to teach children with special need were introduced.

The Commission stressed on the need for practice teaching as a part of teacher education programmes. It introduced the concept of demonstration school/ model schools to get training for teacher candidates under practical situation. These schools were to be at a reasonable distance from the training colleges. The Commission suggested that practice teaching should not be limited to demonstration lesson, observation lesson, criticism lesson or practice teaching but also construction and administration of achievement tests, practical classes on physical education, and training sessions on co-curricular activities also must be arranged.

The Commission clearly emphasised the need of various components of practical session in addition to theory courses. The Commission also emphasised the need for specialised training programmes for children with special needs. Apart from that, general principles of mental hygiene were implemented as essential component of teacher education programmes to inculcate proper behavioural skills in teachers and students as well.

The Commission stressed the need of variety of curricular activities and innovative methods of teaching in teacher training programmes. Training in

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extracurricular activities, training in controlling library, training in physical education, concepts related to health and care of children, school leadership character building, importance of scout and guides, junior red cross, formation of students clubs, citizenship training, conducting debates, seminars, quizzes and social service were some of the programmes recommended by the commission as part of teacher training. The commission also recommended conducting of in-service training for working teachers to update pedagogical and content knowledge. The Commission suggested to distribute stipend to all teacher candidates and to set up residential training schools. In order to overcome the shortage of women teachers in the country, part-time training courses were to be arranged for women candidates. For admission to master degree in education, it was recommended that students should have at least three years of teaching experience.

The Commission suggested two types of training institutions for teacher training. These were:

- **Two-year teacher training programme:** It was conducted for candidates having school leaving certificate or higher secondary leaving certificate. The programme should be arranged under a separate apex body under the government.
- **One-year teacher training programme:** It was for candidates who are graduates. It should be under any universities of the country. The degree or diploma certificate has to be awarded to the students after completion of the one year course by any university.

Many of the recommendations were accepted and implemented by the state but failed to implement some of the recommendation in satisfactory manner. The government in 1954 appointed another team of international experts in collaboration with Ford Foundation to study education in detail. This team recommended the following measures to improve quality of graduate teacher education programmes:

- The teacher education programme should be designed in such a manner that it should prepare the students to take up assignment as teachers.
- Realistic methods of teaching should be implemented in teacher education institutes.
- Practice teaching should be arranged in block-wise manner and proper implementation strategy has to be adopted.
- Laboratory schools should be set up to experiment innovative method of teaching and curriculum construction.
- Extracurricular activities should be arranged and made an integral component of practice teaching.

In 1956, the government appointed an expert committee with Dr. E. A Pires as Head to design a new syllabus for secondary teachers training. The committee, later known as Pires Committee, published the draft of recommendation, which was accepted at the Conference of the Principals of Training Colleges in 1957. The recommendations are given below.

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- Weightage for both theory and practical courses should be made equal
- The theory papers of teacher education to be reduced to the following four papers:
  - o Principles of Education and School Organisation
  - o Educational Psychology and Health Education
  - o Methods of Teaching of two school subjects
  - o Current Problems in Indian education

The second Five Year Plan was launched in 1955-56 and it was contemplated that sixty-eight per cent of teachers would be trained by 1960. An amount of seventeen crore was apportioned for increasing training facilities. In 1957, the All India Council for Secondary Education and All India Council for Elementary education were formed to recommend suggestions for improvement of teacher education at respective levels. Both councils provided necessary extension services to teacher education programmes in various areas.

During the decade of 1960's, more efforts were made by different committees to review and recommend innovative strategies to improve the quality of teacher education in the country. A major one was the Review Committee formed by the University Grants Commission in 1960, under the chairmanship of N. K. Sidhantaah. The All India Council for Elementary Education also appointed a study group in 1961 under the chairmanship of Roy Singh. Both the review committees presented its views on structure and procedure of teacher education in the country and contributed valuable suggestions to improve the system.

The study group's work concentrated on elementary teacher education while the Review Committee commented on the objectives, curriculum and transitional strategies of teacher education. The study group, finding the quality of elementary teacher education poor, recommended in-service training to the untrained teachers working in the country. It also recommended to provide extension services to untrained teachers on massive scale to improve quality of elementary teachers. The major recommendations of these committees are as given below:

- The criterion for admission to M.Ed. degree programmes was fixed as second class master's degree plus first class in B.Ed. degree both in theory and practical paper. Those having at least second class in bachelors/ masters were given direct admission to two year integrated M.Ed. degree course, to attract gifted candidates for teaching profession.
- Students had to complete one specialisation with acquaintance in methodology of research.
- Individual dissertations were replaced with group projects at M.Ed. level.
- Those who aspired to conduct research studies in education were to be scrutinized by a screening committee appointed for the same.
- Encouragement was provided to research scholars on studies which required immediate attention in educational field.
- Doctoral degree holders are only permitted to supervise research scholars.

Again in the same year (1961), a study group under the leadership of B. M. Jha was appointed by the Planning Commission to suggest measures on improvement of teacher education. The committee emphasised the need to replace old age traditional system of teacher education with modern, innovative styles of teacher education to create capable teachers useful in nation building. They were of the opinion that sound teachers, male or female, can be moulded only through proper integration of theoretical knowledge with practical component of teacher education curriculum. The concern on the wide gap between theory and practical component was noted by the committee which suggested conducting about thirty lessons (fifteen each in two subjects) during the course of teaching practice.

This system is followed still in some states as a continuation observing lesson, criticism lesson, and demonstration lesson. In addition, proper experimentation in various extracurricular activities was to be conducted to gain more insight in various components of teacher education. The Commission appreciated the contributions of Kurukshetra University and four regional colleges of education in the field of teacher education, on experimentation of various components of teacher education. The Commission also recommended giving high priority to teacher education in the Twelfth Five Year Plan.

Another landmark during the 1960s was the establishment of National Council of Educational Research and Training (NCERT), with headquarters at New Delhi and opening of Regional Colleges of Education at Bhopal, Bhubaneswar, Mysore and Ajmer. NCERT was intended to provide training to school teachers, conduct research, publish necessary books and other related material and co-ordinate various activities of school and Regional Colleges of education. Later, NCERT came up with designing text books for different classes. Meanwhile, Regional Colleges offered different types of degrees in teacher education and in turn, set standard for teacher education in the country. They offered innovative four year integrated B.A., B.Ed./ B.Sc., B.Ed./B.Tech and other normal B.Ed. programmes.

Education Commission (1964-66)

In the history of education, another commission was appointed under the chairmanship of S. Kothari (popularly known as the Kothari Commission) to review the education system in 1964. The commission submitted its report in 1966—a comprehensive report on different aspects of education. The Commission gave valuable suggestions on different sectors of education, viz, primary, secondary, higher secondary, vocational, technical and teacher education. The Commission devoted a separate sheet for the recommendations on teacher education at all levels of teacher education, from elementary teacher education to higher secondary. It expressed its deep concern for poor quality of teacher education and recommended a sound programme of professional education to teachers.

The Commission found that the quality of teacher education is very poor in some institutes and had nothing to do with the ground reality. It suggested the following strategies to improve teacher education in the country:

- Removing mismatch of teacher education programmes with school life realities

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- Bringing teacher education closer to university education—teacher education programmes should be raised to the standard of collegiate education
- Adopt methods to improve quality of both training procedure and training institutions
- Internship programme to carry out practical knowledge in real classroom situations which would help build healthy relationship between working teachers, classroom climates, activities of schools
- Expand the scope and access of training facilities
- Implement in-service training programmes for professional growth
- Creation of agencies both at national and state level to maintain the standard of education

Isolation of teacher education was one of the important recommendations of Kothari Commission. It stated that education should be isolated from universities and treated as social science or a separate discipline. This subject can be introduced as an elective subject both at undergraduate or postgraduate level. The courses at undergraduate level would include papers like philosophy, psychology and sociological foundations of education, comparative education, contribution of great educationists and a paper on recent trends and practices of educational problems.

For postgraduate level, M.A. in education should be introduced of two year duration. The Commission was of the opinion that training schools should assist the neighbourhood schools in day to day activities like planning timetable, and help in using improved teaching methods. This may be facilitated by opening an extension department at all training level institutions.

The commission also pointed out the following measures to improve professionalism and quality of teacher education:

- Linking theoretical knowledge/subject knowledge to practical activities of the school.
- In order to overcome the burden due to linkage of the fundamental subject knowledge with school curriculum, number of working days may be increased from 180 to 190 days to 230 days.
- Integrated courses may be developed and practiced in universities with strong education departments or schools of education.
- No separate institute should be opened to experiment integrated courses.
- Curriculum should be reframed so as to build professional qualities of students at maximum possible level. It should include the cultural aspects of the country.
- Proper books must be written to cater to the needs of teacher student community for reference during teacher education period.
- Research on relevant educational programmes to be carried out at all levels of teacher education. Focus should be given to research on teaching of English and Indian languages.

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To improve the quality of teaching methods and instruction, the Commission recommended the following:

- Traditional methods of teaching should be replaced with novel methods of teaching. Teaching methods can adopt strategies like self-reflection, self-study, independent thinking methods, audio-visual equipment, case studies, project works seminars.
- Teacher education should be well integrated to develop qualities like concern for society, sensitivity towards human behaviours, and positive attitude toward teaching profession.
- Reform in evaluation system must be introduced. Internal assessment should be made an integral component of evaluation. Teachers should take care to maintain cumulative records in consultation with the students.
- Teaching practice should be conducted in two stages and are supposed to conduct continuous practice teaching of at least eight weeks in a school identified by them. They should participate in all activities of the school, school assembly, physical education classes, club formation, art festivals, library work, workshops and other co-curricular activities.
- As part of professional development, special professional training programmes should be arranged for school headmasters and teacher educators.
- The duration of the programme may be extended to two years for students who have completed secondary school certificate and one year for graduate students.
- The post graduate course in teacher education must be flexible to adapt changes in the society.
- Curriculum of teacher education should be flexible and should be modified to incorporate the latest happening in the field of education, to meet the realities of the practical activities of the classrooms. Political, social, economical and technological developments must be incorporated in revising the curriculum.
- In-service programmes may be arranged at all levels from primary to higher secondary to develop the professional qualities by various organisations, universities, teacher training colleges. Teachers to attend at least two/three month's in-service programmes once in five year. For secondary teachers, school summer institutes should be developed and proper follow up strategies should be planned to monitor the in-service programmes.

As per the recommendations of the Kothari Commission, universities like Kanpur, Kurukshetra and Aligarh started new master degree courses in education. To provide in-service courses summer school-cum-correspondence courses were initiated by regional colleges of education. Steps were taken by the regional colleges of education to provide training programmes to the untrained teachers of the country. During this period, different state governments took keen interest to open State

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Boards of Teacher Education to impart training to teachers at different level and to develop linkage between various teacher education colleges at the university and college levels.

The impact of recommendations of Kothari Commission was to raise the standard and quality of teacher education in the country. The number of teacher education institutions increased to 273 in 1956 from fifty in 1950. Similarly, the number of elementary teacher education increased to 1548 in 1965-66 from 184 in 1950s. The Fourth Five Year Plan emphasised the need to rethink and spend a good amount to improve the quality of teacher education by training women teachers, Scheduled Tribe teachers, mathematics and science teachers. In between a review committee was appointed in 1968 under the chairmanship of B. D. Nagachudhari to look into the functioning of NCERT.

The Committee suggested reinstating the integrated teacher education courses from Regional Colleges of Education to universities. Another landmark in the field of Teacher Education was the establishment of National Council for teacher education (NCTE) in 1973, an apex non-statutory body exclusively for teacher education. This body was entrusted to report to the government in matters relating to teacher education in the country and to look after the implementation of strategies of teacher education designed in Five Year Plans. The NCTE was located at NCERT campus and it designed the first framework, Teacher Education Curriculum in 1978, which covered the whole aspect of teacher education and gave remarkable suggestions regarding pedagogy, content, procedure, methods, practice teaching, and curriculum. Due to non-statutory status, NCTE authorities failed to implement some of the suggestions.

National Commission on Teachers (1983)

National Commission on Teachers (1983) under the leadership of Prof. D. P. Chattopadhyay suggested the following measures to strengthen teacher education:

- The duration of teacher education should be extended to two years. The number of working days will be 220 days in each year.
- After secondary school, a four year/five year (preferred) teacher education certificate will be introduced.
- For XII qualified candidates, the course will be of two year duration in elementary teacher education programme and the possibility of four year integrated teacher education course for class X qualified may be explored.
- Selection test should be conducted to select students for teacher education programmes. The test will be combination of rating scale, objective questions, group discussion and personal interview. In addition, the physique, general awareness, attitude towards life of the candidate would also be considered during the selection process.
- Training is a joint responsibility of teacher education institutes and teaching practice schools will make sure to improve the quality of training.
- Duration of practice teaching will be four weeks in the third year and three weeks in the fourth year. Students were also expected to take part in all activities conducted by the schools.

- Curriculum of teacher education programmes for elementary and secondary teachers will consist of theory components like professional preparation, general education and practical component like practice teaching.
- To measure teacher student qualities like attitude towards work, affection for students and involvement in activities, proper evaluation criteria should be developed by the teacher education institutions.
- Teacher educators who are expert in the use of educational technology may be identified and posted in each education colleges.
- Opportunities may be provided for self-assessment, discussion of lessons, and self-evaluation.

National Policy on Education (1986)

The number of school expanded drastically in 1980s which increased the demand for teachers on a large scale. But the quality and efficiency of the teacher education became the serious concern of the country. It failed to implement some of the remarkable recommendation made by the pervious commissions set for rewinding the education system. The curricula were not revised, most of the institutions' infrastructural facilities were poor, and the quality of teachers was not up to the mark. In this regard, the Government of India introduced a new policy, the National Policy on Education in 1986 to reframe the educational system.

The policy expressed its serious concern regarding teacher education and teachers as 'the status of teacher reflects the socio-cultural ethos of the society—it is said no people can rise above the level of its teachers. The government and the community should endeavour to create conditions which will help, motivate and inspire teachers on constructive and creative lines'. The policy recommended complete restructuring of teacher education in the country in terms of its pre, present and post training procedure. New programmes and continuing education was suggested to improve the quality of teachers.

One of the remarkable contributions was to start District Institutes of Education (DIET) across the country to wipe out sub-standard teacher education. DIETs were created to provide quality teacher education training to elementary teachers. As part of professional development, it was also entrusted to organise in-service programmes for the teacher community and those who worked in non-formal and adult education sector. The policy also recommended upgrading of Secondary Teacher Training Colleges to College of Teacher Education (CTE) which will help and assist the work of State Educational Research and Training (SCERT). The commission also recommended National Council for Teacher Education (NCTE) to provide all resources to relook into the teacher education programmes and to accredit teacher training institutions. NCTE was also to initiate networking arrangement between university teacher education departments and rest of the teacher training institutions.

As sequel to the National Policy on Education, a Programme of Action was prepared to restructure teacher education programmes on comprehensive manner. The Programme of Action had the following components:

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- Establishing DIETs
- Two-fifty teacher training colleges to be updated to Colleges of Teacher Education (CTE)
- Adopt measures to strengthen the SCERTs
- Arrangement of orientation courses to school teachers
- Setting up of Departments of Teacher education in universities and strengthening them

Subsequent to NPE, a centrally sponsored scheme of teacher education was established by the Government in 1987. The objective of the scheme was to provide necessary professional development programmes for school teacher in the country in areas like methods of teaching, pedagogical skills and competence development. Again under the Programme of Mass Orientation to School Teachers, in-service training programme was conducted for 17.2 lakh school teachers in 1986-87.

To review the progress of National Policy on education and POA, the government constituted a committee under the chairmanship of Acharya Ramamurthy. The committee was of the opinion that the NPE and its sequel POA were strong enough to reframe the teacher education programmes and its recommendation should be implemented and translated into action. The Committee also expressed its concern for the non-implementation of many of the recommendations of the POA.

Programme of Action (1992)

The National Policy on Education (1992) gave importance to the functioning of teacher education institutions. Based on the suggestions of NPE and POA, a lot of money is being spent on infrastructure and organization of various in-service programmes. By the year 1998-99 there were forty-five DIETs, seventy-six CTEs and 34l ASEs but has had not much impact on the quality of teacher education. Out of 2426 applications from the training institutions, only 408 were granted recognition by NCTE and 1294 were accorded provisional recognition during the year 1998-99. Out of 1349 applications for opening institutions only 277 were allowed and duly recognized. During this period, provisional recognition was accorded to 1035 institutions.

The major suggestions of the Programme of Action were as follows:

- Stressed the need for integration of theory and practice of teacher education programmes.
- By the end of Eighth Five Year Plan, all the districts will be covered by DIETs and two-fifty IASE/CTEs will be set up in the country.
- Suggested to confer autonomous status to SCERT, NCTE and to set up State Boards of Teacher Education.
- Launch of special orientation programme for school teachers for professional development, as a continuation to centrally sponsored scheme.
- Recommended to strengthen Department of Teacher Education in

universities and to provide incentive for good performance to teachers and disincentives for non-performers. The NCERT was entrusted to frame such norms for school teachers.

- Entrusted NIEPA and NCERT to develop induction and continuing programmes for DIET, SCERT and CTE faculties.

As per recommendations of NPE and POA 1992, a wide number of teacher education institutions have opened which include 461 DIETS, eighty-five CTES and 371 IASE. Fund was allotted in the Tenth Five Year Plan to arrange in-service programmes for 425 DITEs, teacher training colleges increased from 804 to 1334 in the year 2000. In Tenth Five Year Plan, in-service programmes was conducted to train 16.21 lakh teachers in the country. The in-service programmes were arranged under the scheme of 'Special Orientation Programme' for Primary Teachers (SOPT). In the year 1993, statutory status was given to NCTE, as sequel of POA, 1992. Later NCTE framed rules and regulation for maintaining the standard of teacher education including distance education teacher education programmes. NCTE developed 'Curriculum frame work of Quality Teacher Education' in 1998 and then in 2009.

The first decade of the twenty-first century had the privilege of the liberalization policy introduced in early nineties. This opened up the education sector to the private players and there was Public Private Partnership (PPP). Encouragement was given to foreign universities to open their branches in this country. National knowledge commission has been set up which recommends to achieve Gross Enrollment Ratio of fifteen per cent by 2015 in higher education. After Sarva Siksha Abhiyan, efforts are being made to universalize secondary education through Rashtriya Madhyamik Shiksha Abhiya (RMSA). The11th Plan is, therefore, called education plan as it gives more emphasis to education especially higher education.

CHECK YOUR PROGRESS

5. What was the aim of education during the Vedic period?
6. What was the aim of education during the Upanishad period?
7. Name the three methods of teaching in the Upanishad period.
8. What was the motto of education during the Brahminical period?

1.4 AIMS AND OBJECTIVES OF TEACHER EDUCATION AT ELEMENTARY, SECONDARY AND TERTIARY LEVEL

The following are the general objectives of teacher education programmes:

- Building an interest among pupil teachers in philosophical, psychological and sociological principles relevant to elementary education, i.e., understand the learner, the teacher's role and the teaching-learning process

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- Developing skills for teaching integrated environmental studies, inter-relationship between social sciences and science and technology
- Inculcating language skills and speech, and develop an aptitude to listen to enable teaching languages effectively and creatively
- Enabling student teachers to plan and organize physical activities such as sports and puppetry shows
- Enabling them to inculcate values within the classroom and outside
- Enabling pupil teachers to remain lifelong learners and develop the attitude to learn among learners
- Developing the ability to solve problems of the learners such as social, interpersonal and emotional
- Enabling student teachers to establish bonds with parents and the community to strengthen school programmes
- Enabling students to undertake research projects
- Training students to meet requirement of learners with special needs
- Developing concern to spread education among the weaker and deprived groups of learners
- Developing skills to contribute effectively in Sarva Siksha Abhiyan (SSA)
- Training students to practice hygiene and maintain good health
- Developing awareness regarding conservation of environmental resources and life and preservation of historical monuments and other cultural heritage
- Preparing them to play the role of an agent of social change in the community
- Preparing them to not only act as a leader of the student community but also as a guide to the wider community
- Preparing student teachers to be able to liaison between the school and the community
- Developing understanding, interests, attitude and skills which will enable them to foster all-round growth and development of the children under their care
- To help develop a warm and positive attitude towards the growing children and their academic, socio-emotional and personal problems
- Developing an understanding of the objectives of student teaching in the Indian context and awareness of the role played by schools in achieving the goals of developing a democratic, secular and socialistic society
- To develop competency in teaching on the basis of accepted principles of learning and teaching
- Keeping abreast with the latest trends in the knowledge of the subject he teaches and the techniques of teaching the same
- Developing communication, psychomotor skills and abilities that will enable them to promote learning inside and outside the classroom

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1.4.1 Pre-primary Stage

Pre-primary stage is not the stage for formal education. Hence, literacy is not the concern though it prepares students for elementary education. At this stage, learning is characterized by activities performed in groups, using playway methods, language, number games and activities intended to promote socialization and environmental awareness. All these are done to develop physical, mental and emotional aspect of the child. Approaches in developing life skills and formation of good habits need to be addressed with great care. Some points to be kept in mind are:

- It is required to acquire theoretical and practical knowledge about early childhood education.
- It is required to develop understanding of the major principles of child growth and development with special reference to the environment of the child.
- It is required to apply this understanding and knowledge to the education of young children under the Indian conditions, namely, rural, urban and industrial.
- It is required to develop skills of communication such as telling stories, explaining situations, etc.
- It is required to develop skills of taking care of the physical and emotional health of young children by creating a conducive environment.
- It is required to possess skills of developing simple visual aids from waste and indigenous material.
- It is required to understand the home environment of the children and develop an amicable home-school relationship for mutual benefit.
- It is required to possess knowledge and develop skills providing a variety of learning experiences through the organization of musical, rhythmical and dramatic activities.
- It is required to understand the role of school and of the teacher in changing the society.

1.4.2 Primary Stage

Elementary education holds a key position in the education system due to the significant contribution it makes to national development. Children are admitted at this stage after completing pre-school education. They are usually first generation learners who can be from various social strata. It is the nursery of inculcating values such as patriotism, morals and development of appropriate behaviour and life skills. The impressions acquired during this stage generally remains throughout the life. Following are some of the rules of this stage:

- To gain competence in first and the second language, this can be the mother tongue or the national language, mathematics, social sciences, environmental studies and nature
- To develop skills in identifying, selecting and organizing learning experiences for teaching the above mentioned subjects in formal and non-formal situations

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- To gain theoretical and practical knowledge on health, physical and recreational activities, art and music, and skills for conducting these activities
- To develop understanding of the psychological principles underlying the growth and development of the children of the age group six-plus to fourteen-plus years
- To understand the principles which help in promoting cognitive psychomotor and attitudinal learning
- To understand the role of the home, the peer group and the society in shaping the personality of a child, and help develop an amicable home school relationship for mutual benefit
- To understand the role of school and the teacher in changing the society

1.4.3 Secondary Stage

Contemporary India has taken a fresh and more significant look at the role of education within the framework of overall national development. Educational goals synchronize with the national goals of development which seeks to develop human resources. Development of human resources can be achieved through organized teacher education programmes. Hence, the following objectives have been set:

- To maintain continuity of elementary education and prepare students to study diversified courses and appropriate selection of subjects at the senior secondary stage
- To empower pre-service teachers to adopt disciplinary approach in teaching, and develop interest in them
- To prepare them in the use of Information and Communications Technology (ICT), its advantages, disadvantages and safety measures
- To bridge the educational and cultural gap between the affluent and poor schools through appropriate educational approaches
- To develop patriotism, and recognize the country's contribution to the world
- To develop understanding among pre-service teachers on the nature of subjects
- To create awareness on environmental protection and need to maintain an ecological balance
- To help students to hold on to the main thrust of the curriculum and develop appropriate transactional and evaluation strategies for the same
- To enable the pre-service teachers to familiarize and sensitize the students with care and caution about life skill education, HIV/AIDS preventive education, and reproductive health
- To sensitize them to improve the quality of education by building the capacity to undertake action research to solve problems and to evolve culture specific and community oriented pedagogy
- To facilitate them to evolve happy and healthy school and community relationship

- To make student teachers to understand not only the subject but also the unity of knowledge among different subject
- To develop among student teachers an integrated and holistic approach in the teaching of social sciences and sciences and technology
- To empower student teachers to know how learners construct knowledge
- To develop among student teachers the skills of communication and language proficiency
- To help student teachers to acquire a repertoire of strategies, competencies and skills for transaction and evaluation
- To develop among student teachers the competencies in using locally available educational resources
- To develop among student teachers the skills of ICT and making use of Internet for enrichment of knowledge content
- To enable student teachers to promote self-learning/mutual learning in and outside the classroom in order to eventually become independent learners
- To develop among student teachers skills of lifelong learning for their professional development
- To inculcate among student teachers social, cultural, aesthetic, moral and spiritual values and scientific approach and skill of integrating and transacting these
- To develop among student teachers the competency to deal with learners with special educational needs leading to inclusive education
- To make student teachers appreciate the contribution of India to world's civilization and vice-versa in various walks of life
- To enable student teachers to establish rapport with parents and the community to ensure reciprocity for the development of both
- To enable student teachers to acquire skills for guidance and counseling
- To develop among student teachers the competency of conducting action research for total quality improvement
- To enable student teachers to integrate values in all subjects/activities
- To develop among student teachers awareness and sensitivity towards environment concern and promoting skills for meeting environmental challenges
- To enable student teachers to develop competencies for an error-free, responsive and transparent evaluation

1.4.4 Higher Secondary Stage

Higher secondary education occupies a unique position in the system of education. Based upon the foundations of secondary schools, it is a stepping stone to higher education on the one hand and to the world on the other. The students become mature enough to take decision about their further education and their interests,

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aptitudes, goals and needs become more crystallized. Higher secondary or +2 level education offers two streams—academic and vocational. Students joining vocational stream often enter the world of work and take advance courses in vocational and technical institutions.

Students joining academic stream often make their way to higher education or professional education. Subjects in the academic stream are taught as independent disciplines and not thematically or in an integrated fashion. The academic and vocational streams available at the higher secondary stage have specific objectives but there is a need to ensure that appropriate linkages are maintained and strengthened between the two.

The existing pre-service teacher education programme is preparing the teachers to teach at the elementary and secondary stages only. There is no provision to prepare teachers for higher secondary stage. Therefore, there is a need to have a separate teacher education programme for student-teachers of higher secondary stage. As there are two streams—academic and professional—at higher secondary stage, pre-service courses need to be organized for both the streams.

Higher Secondary Education: Major Thrusts

The NCFSE-2000 (National Curriculum Framework for School Education) realizes the criticality of higher secondary education. It suggests definite approaches and opens new vistas by indicating its thrust areas. This stage makes clear demarcation of educational streams—academic and vocational—yet simultaneously adopts a flexible approach to permit lateral access, the characteristic of a healthy system. It ensures that appropriate linkage between the two is not only maintained but also systematically strengthened, through bridge courses.

For academic stream, the course includes:

(i) Foundation course (language and literature, work education, health and physical education)

(ii) Three elective subjects from a large number of academic disciplines:

- Language
- General foundation course
- Health and physical education and
- Vocational electives having certain common as well as stream-specific objectives

Both these streams aim at establishing coordination between life and learning. The NCFSE-2000 recommends semester and credit system. It clearly enunciates the objectives of higher secondary education required for higher academic and vocational competencies and skills.

Objectives: Academic Stream

The general objectives of higher secondary teacher education (academic stream) may include the following:

- Developing among student teachers the capacity to understand the place of academic stream and developing a correct perspective of its nature, purpose and philosophy
- Familiarizing student teachers with effective techniques of transaction and evaluation, especially in the context of learners reaching the final phase of adolescence
- Empowering student teachers to develop strategies to promote discipline-wise learning as well as to appreciate linkages among different subjects
- Making student teachers capable of using need-based ICT
- Empowering student teachers to guide learners for self-study, reference skills, group work/mutual learning, critical thinking, abstract conceptualization and application of knowledge by adopting various methods such as project work and tutorials
- Enabling student teachers to integrate values in all subjects/activities in the classroom and outside the classroom
- Developing among student teachers awareness and sensitivity towards environment concern and promoting skills for meeting environmental challenges
- Enabling student teachers to acquire skills for guidance and counseling
- Developing among student teachers the competencies of conducting action research for total quality improvement

Objectives: Vocational Stream

The general objectives of higher secondary teacher education (vocational stream) may include the following:

- Developing among student teachers a proper perspective towards work ethics
- Making student teachers understand nature, purpose, philosophy, perspectives and problems of vocational education
- Enabling student teachers to understand the emerging vocational needs of the society
- Enabling student teachers to combine world of work and learning
- Developing among student teachers the capacity to establish proper linkages between school, society, industry, agriculture and environment
- Empowering student teaches to acquire competencies, commitment and performance skills for effective management of vocational education
- Developing among student teachers right attitudes and skills of entrepreneurship
- Enabling student teachers to undertake community survey for assessing new vocational needs and establishing coordination with relevant agencies and voluntary organizations

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1.4.5 Implications for Pre-service Teacher Education

Some of the significant implications emanating from the above objectives are:

1. **Curriculum content and transaction:** The NCFSE-2000 suggests changes which have implications for teachers of both the streams. It gives a new direction for selecting objectives, curriculum, transactional strategies and evaluation system. Curriculum content of teacher education and its transactional strategies will be stream-specific, though there would be some commonality between he two. The thrust areas of NCFSE-2000 and role of teacher education will be the main focus of teacher education curriculum and its mode of transaction.
2. **Academic stream:** The curriculum content of teacher education will require formulation of its foundation courses incorporating latest development in different areas. Its objective would be to help student teachers become capable of clear and critical thinking and relate their teaching to the needs of specific disciplines and those of the society.

   New developments in these areas need to be appropriately reflected in the course components of anthropology, bio-chemistry, bio-physics, life sciences, neurology and genetics. These shall have to be given proper place to enable student teachers for developing proper understanding of learners. Relevant contents from history and comparative education will enable student teachers in developing proper understanding of learners. It will also enable student teachers to have an idea of the development of educational system in India and abroad. Components from economics of education will have to be included for enabling student teachers to understand the contribution of education towards national development.

   The inclusion of educational planning and management will develop among them understanding of the merits and shortcomings of education in these fields. Emerging trends in Indian society and economy, i.e., globalization, liberalization, privatization, disinvestment need to be studied appropriately. In addition, concerns like ecological imbalances, environmental degradation also have to be studied in their socio-cultural-economic context. Methods of teaching should include pedagogical analysis, ICT, new evaluation techniques and modern approach to curriculum transaction.

   While transacting the curriculum of teacher education at this stage, the following considerations need to be kept in mind:

   - Demands of theoretical and practical components of teacher education along with their objectives
   - Compulsions of knowledge society with its emphasis on learning to learn and learning to live together
   - Rapidity of change in theory and practice of education

   The imperative would be to integrate theory and practice and make transactional strategies discipline-oriented. Student teachers need proper understanding of this approach. A synthesis between teacher education

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institutions, school-based and community-based approaches and also between independent study and group learning has to be achieved. Student teachers need to be encouraged to give seminars and organize workshops. Library and laboratory work should be given due consideration. Practice teaching and practical experiences should be provided in realistic situation in the school and be jointly supervised by school teachers and teacher educators.

Student teachers need to be encouraged to undertake projects and action research. Interactive approach, group discussion, cooperative learning and audio-visual demonstration assume a central place in the process of curriculum transaction. Student teachers should participate in classroom teaching during internship in teaching programme. Innovative training methodologies have to replace traditional ones. Initiative has to come from student teachers who have to become active participants in the process of curriculum transaction. The goal in this regard would e to develop teaching competencies, commitment and performance skills among student teachers.

3. **Evaluation:** Evaluation has to be made scientific in approach, transparent, continuous and comprehensive. Both formative and summative evaluations using appropriate tools and techniques would need to be utilized. Transparency of evaluation and seeking involvement of student teachers through practice of peer evaluation and self-evolution viz-à-viz evaluation by the teachers needs to be ensured. A proper balance between internal and external assessment has to be struck. Due weightage has to be given to assignments projects and action research in evaluation of theoretical and practical components of teacher education. The principal and school teaching staff may be involved in the assessment of the work of student teachers during internship period.

   Evaluation shall be flexible. It must include scholastic and co-scholastic components and the assessment be made through grades. Peer evaluation and student teachers' own involvement in their evaluation will be helpful in generating transparency of the process. A detailed evaluation sheet containing all the scholastic and co-scholastic achievements of student teacher need to be prepared for which a variety of tests and tools need to be constructed.

4. **Vocational stream:** The content of teacher education for elective vocational subject has to be functional. The need for effective vocational education hardly needs reiteration. It shall be related to theory and practice of a vocation. In addition to the components for developing skills and competencies for achieving success in a vocation, its broad principles may also be taught to student teachers.

The relationship between academic and vocational education and development of aesthetic sensibility is taken care of. Teacher educators may be oriented for course components like teaching salesmanship, market survey, advertising; elementary accountancy, office management, art of business correspondence, business ethics, financial management. and these components will have to be included in the curriculum. Inculcation of entrepreneurship skills and organizational management skills will have to be included.

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Components of vocational and industrial psychology, sociology of work and philosophy of vocational education need to be integrated in the curriculum. Development of vocational competencies and skills would constitute an integral part of the programme.

At present no pre-service teacher education facilities are available for the training of vocational teachers. Most of the training of vocational teachers is done through in-service programmes. This situation needs to be thoroughly examined. The existing in-service teacher education programmes may not be adequate for skill development commensurate with the needs and equipments of teachers of vocational stream. Training of vocational teachers through in-service programmes is generally limited to a few demonstrations, workshop practices, occasional visits to vocational and industrial sites, field work, and market surveys. obviously programmes of short-term duration, can be undertaken only at peripheral level.

Student teachers need to work in actual situation as apprentice to refine their skills. The potentialities of workshops, laboratory and expertise from the community may be mobilized and used in the transaction of the curriculum. Practice teaching needs to be arranged in real work situation and student teachers will have to undergo an intensive programme of internship. There are four stages, namely:

- **First stage**: Teacher-education at pre-primary, primary, junior, secondary and collegiate stages
- **Second stage or M.Ed:** Teacher-education for those who have completed B.Ed courses
- **Third stage or M.Phil.:** Teacher-education for those who have passed M.Ed. course
- **Fourth stage or innovation stage:** After completing M.Phil, each individual student is expected to select some educational problem and has to present the problem in the form of a thesis

CHECK YOUR PROGRESS

9. What is the benefit of synchronizing of education goals with national goals of development?
10. Which two streams are offered by higher secondary stage of education?

1.5 AGENCIES OF TEACHER EDUCATION

India is a vast country with several types of education such as school education, higher education, technical education, teacher education, medical education, management education, law education, para medical education, distance education. Many national institute/council and regulatory bodies function in India to regulate and govern these various types of education. All the regulatory bodies function under the umbrella of University Grants Commission (UGC).

Moreover, the national councils and the regulatory bodies enjoy functioning and decision making autonomy. Lately a fruitful initiation has taken place to propose University Grants Commission as National Commission on Higher Education and Research (NCHER). The list mentioned below are the regulatory bodies in education in India:

Table 1.1 *Regulatory, Statutory, and Governing Education Bodies in India*

S. No.	Name	Main Role
1.	University Grants Commission (UGC)	Funding, recognition of institutions and degree titles, maintaining overall standards
2.	Distance Education Council (DEC) under the IGNOU Act	Funding, maintaining standards of open education
3.	All India Council for Technical Education (AICTE)	Approval for technical institutions and limited funding role for quality improvement
4.	Council of Architects (CoA)	Registration of architects and recognition of institutions for education in architecture and town planning
5.	Medical Council of India (MCI)	Registration of medical practitioners and recognition of medical institutions and qualifications
6.	Pharmacy Council of India (PCI)	Registration of pharmacists and approval of pharmacy institutions
7.	Indian Nursing Council (INC)	Accepts qualifications awarded by universities within and outside India
8.	Dental Council of India (DCI)	Recommend to the Central Government for approval of dental colleges etc.
9.	Central Council of Homeopathy (CCH)	Maintain Central Register of Homoeopaths
10.	Central Council of Indian Medicine (CCIM)	Maintain central register
11.	Rehabilitation Council of India (RCI)	Recognition of institutions for physiotherapy and related fields
12.	National Council for Teacher Education (NCTE)	Recognition of teacher education institutions, framing norms and standards
13.	Indian Council for Agricultural Research (ICAR)*	Coordinate and fund agricultural education
14.	Bar Council of India (BCI)	Listing of Members of Bar
15.	National Assessment and Accreditation Council (NAAC)	Inspecting and grading education institutes
16.	National Council Of Education Research And Training (NCERT)	Develop curriculum and other necessary actions for school education

* Not a statutory body

Source: Compiled by the author from various sources

Table 1.1 contains the regulatory, accredited, and the governing education bodies in India. The bodies mentioned above are unique and manage to assure quality in education. Among them, few institutes are those which are working for the development of teacher education in India. NCTE is directly associated with teacher education, its management and quality check whereas other institutes such as UGC, NCERT, DEC, NAAC, and RCI are closely associated with the development of teacher and school education in India.

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Besides the regulatory and the governing bodies, other institutes like SCERT, DIET, BRC, and CRC equally work for the development of teacher education. Let us discuss the institutes associated with teacher education.

1.5.1 National Council for Teacher Education (NCTE)

National Council for Teacher Education (NCTE) is the apex body in teacher education in India. It has its main campus in New Delhi with a regulating authority of teacher education throughout India, including teacher education through distance mode.

Establishment

National Council for Teacher Education (NCTE) was set up in 1973 on the recommendation of Education Commission (1964-66) to advise the central and state governments on matters relating to teacher education. NCERT provided secretarial support to NCTE the non-statutory body. NCTE developed a 'National Framework for Teacher Education Curriculum' 1978 and also created awareness on issues related to teacher education nationwide.

However, it was unable to prevent proliferation of bogus or sub-standard teacher education institutes from functioning as NCTE was a non-statutory body. Therefore, a need was felt to empower NCTE and make it an autonomous statutory body so that it could regulate the institutions of teacher education and guide them in their curricula and methods.

NCTE as a statutory body came into force in pursuance of National Council for Teacher Education Act, 1993 on 17 August 1995 by a bill passed in the Parliament.

Organizational Structure

NCTE has its headquarter at New Delhi and four regional committees at Bangalore, Bhopal, Bhubaneshwar and Jaipur to look after its statutory responsibilities. NCTE in Delhi along with four regional committees have academic and administrative wings to deal with functions research, policy planning, monitoring, curriculum, innovations, co-ordination, library and documentation, in-service programmes apart from having the responsibility of introducing innovations in teacher education programmes and planned and coordinated development of teacher education institutions. The NCTE headquarters is headed by the chairperson, while each regional committee is headed by a regional director.

Table 1.2 given below discusses more in detail about the organizational structure of NCTE.

Table 1.2 *Organizational Structure of NCTE*

Units	Structure	Situated at	States Covered
NCTE, Head Office, New Delhi	Chairperson, Vice-chairperson, Member Secretary, and Deputy Secretary	NCTE, Hans Bhawan, Wing II, 1, Bahadur Shah Zafar Marg, New Delhi - 110 002.	All the States of Indian National besides the State Jammu and Kashmir
Northern Regional Committee (NRC)	Regional Director and Executive Committee	Northern Regional Committee (NCTE), 20/198, Kaveri Path, Mansarover, Near Mansarover Stadium, Jaipur - 302020. Rajasthan.	Haryana, Himachal Pradesh, Punjab, Rajasthan, Uttar Pradesh, Chandigarh and Delhi, Uttaranchal
Western Regional Committee (WRC)	Regional Director and Executive Committee	Western Regional Committee(NCTE), Manas Bhawan, Shyamla Hills, Bhopal - 462002, Madhya Pradesh.	Goa, Gujarat, Madhya Pradesh, Maharashtra, Dadra, and Nagar Haveli and Daman & Diu, Chattisgarh
Eastern Regional Committee (ERC)	Regional Director and Executive Committee	Eastern Regional Committee (NCTE), 15, Neel Kanth Nagar, Nayapalli, Bhubaneshwar - 751 012, Orissa.	Arunachal Pradesh, Assam, Bihar, Jharkhand, Manipur, Meghalaya, Mizoram, Nagalanda, Odisha, Sikkim, Tripura, West Bengal
Southern Regional Committee (SRC)	Regional Director and Executive Committee	Southern Regional Committee (NCTE), Jnana Bharathi Campus Road, Nagarabhavi, Opp. National Law School, Bangalore - 560 072	Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Lakshadeep, Andaman & Nicobar Islands, Pondicherry

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The organizational structure of NCTE is decentralized. It has four executive regional committees in its regional offices. As mentioned in Table 1.2 are NRC, ERC, WRC and SRC which have their regional director and executive committee headed by a chairperson to discuss the matter relating to teacher education at their jurisdiction.

Objectives of NCTE

The main objective of the NCTE is to achieve planned and coordinated development of the teacher education system throughout the country, the regulation and proper maintenance of norms and standards in the teacher education system and for matters connected therewith. The mandate given to the NCTE is very broad and covers the whole gamut of teacher education programmes including research and training of persons for equipping them to teach at pre-primary, primary, secondary and senior secondary stages in schools, and non-formal education, part-time education, adult education and distance (correspondence) education courses.

Role and Function

NCTE undertakes various functions relating to teacher education, starting from setting the norm and standards to affiliate the teacher education institutes and to ensure quality in its teaching learning process. Regular supervision and monitoring of the institutes of teacher education is another important function of NCTE. Let us discuss more about the role and function of NCTE:

- Planned and coordinated development of teacher education system throughout the country, regulation and proper maintenance of norms and standards in teacher education system and the matters connected with over all development of teacher education
- Undertakes inspection to observe the facilities provided by the teacher education institutes and recognition of various teacher training courses based on application submitted by the institutions concerned in the prescribed proforma and along with the requisite documents
- Conducts studies and surveys on various aspects of teacher education and then publish them
- Provides suggestions and recommendations to central and state governments, UGC, universities, Distance Education Council and the recognized teacher education institutes on preparation of plans and programmes for teacher education
- Monitors and coordinates teacher education and its development
- Formulates guidelines in respect to qualification and eligibility of teachers who want to teach in schools, colleges and teacher education institutes
- Makes norms for any specified training or category of courses for teacher education and the selection method of candidates, course content, mode of curriculum and curriculum transaction
- Makes guidelines for starting new courses or training, staffing pattern, staff qualification and providing physical and instructional facilities.
- Fixes standards in respect to examinations, criteria for admission to such examinations, and schemes of courses
- Decides the guidelines regarding tuition fees and other types of fees that are charged by institutes
- Conducts and promotes research and innovation in different areas of teacher education
- Lays down norms and standards, and curriculum for conducting Central Teacher Eligibility Test (CTET) to make the teacher eligible up to the teaching Class VIII which is mandatory according to Right to Education Act 2009
- Examines and reviews periodically the implementation of the norms, guidelines and standards laid down by the Council, and to suitably advise the recognized institutions

- Lay down norms for suitable performance appraisal systems and mechanisms for enforcing accountability on recognized institutions
- Makes schemes for different levels of teacher education
- Identifies recognized institutions and set up new institutions for teacher development programmes
- Takes necessary steps to prevent commercialization of teacher education
- Publishes good quality books, scholarly journals, articles, conduct high standard lectures, within its jurisdiction
- Makes a nationwide survey to identify the institute of excellence in the field of teacher education and the contribution of the teacher educators in pedagogy, use of new methodology in teaching, and other areas of teacher education and awards the teacher educators who make excellent contribution in teacher education, providing thirty-two awards annually, four in each region to Elementary Teacher Training, two from each region to CTE/B.Ed., one from each region to IASE/Universities, and one from each region to Physical Education (B.P.Ed./ M.P.Ed.)
- Develops norms and standards for affiliating to the institutes, run the courses of physical education such as Bachelor of Physical Education (B.P.Ed.) and Master of Physical Education (M.P.Ed.) as physical education is a part of school education practices
- Performs other such functions as may be entrusted to it by the Central Government from time to time
- Works with proper coordination with NCERT, UGC, MHRD, RCI, DEC, CBSE and other regulatory bodies promote teacher education and school education
- Develops norms and standards to operate teacher education programmes offered by distance education mode such as D.El.Ed. / B.Ed. / M.Ed. through Open Universities like IGNOU and other State Open Universities

NCTE: Vision 2020

NCTE will have transformed the public understanding of the connection between teacher knowledge and student learning. To accomplish this, NCTE will develop a system that provides rich opportunities for career-long teacher learning and that documents the growth of both literacy teachers and their students. Teachers who choose to participate in this system will be celebrated for their achievements by community leaders and the media. Policymakers also rely upon these teachers for their expertise in literacy teaching and learning.

1.5.2 National Council of Educational Research and Training (NCERT)

National Council of Educational Research and Training (NCERT) is a premier organization in India to take care of the matters relating to school education and research in education. It has a long history to provide quality services to Indian

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students and the teachers. NCERT is well known for its text book publication up to 12th standard. Central Board of Secondary Education (CBSE) follows the curriculum of NCERT and its textbooks. Most State board schools also use NCERT books. Let us discuss the establishment of NCERT.

Establishment

The National Council of Educational Research and Training (NCERT) was set up by Government of India in 1961 as an autonomous organization registered under Societies Registration Act (Act XXI of 1860) to advise and assist the Ministry of Human Resource Development and Departments of Education in states/Union Territories (UTs). The responsibility of NCERT is to formulate and implement their policies and programmes in the field of education for the improvement of school education and provides technical and academic support to schools in India.

Organizational Structure

Following is a description of the organizational structure of the NCERT:

- **General Body:** The Union Minister of Human Resource Development is the president (ex-officio) of the general body of NCERT. The members of the general body are the education ministers of all states and Union Territories and chairperson of the University Grants Commission (UGC), the secretary to the Government of India, Ministry of Human Resource Development (Department of Education), four vice-chancellors of Universities (one from each region); the chairman of the Central Board of Secondary Education, the commissioner of the Kendriya Vidyalaya Sangathan, the director, Central Health Education Bureau, the director of training, Directorate General of Training and Employment, Ministry of Labour, one representative of the Education Division, Planning Commission, members of the executive committee of the council and nominees, not exceeding six, nominated by the Government of India (not less than four of them shall be school teachers). The secretary, NCERT, is the convenor of the general body of the NCERT.
- **The Executive Committee**: It is the main governing body of NCERT. The Union Minister of Human Resource Development is its president (ex-officio) and the Union Minister of State in the Ministry of Human Resource Development is the ex-officio Vice-president. The members of the executive committee are director, NCERT, the Secretary to the Government of India, Ministry of Human Resource Development (Department of Education), chairperson of the University Grants Commission, four educationists well known for their interest in school education (two of whom shall be school teachers), the joint director, NCERT, three members of the faculty of NCERT (of whom at least two are of the level of professor and head of department), one representative of the MHRD and one representative of the Ministry of Finance (who is the Financial Adviser of NCERT). The secretary, NCERT, is the convener of the executive committee. The executive committee is assisted in its work by the following standing committees/boards:

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- o Finance committee
- o Establishment committee
- o Building and works committee
- o Programme advisory committee
- o Educational research and innovations committee
- o Academic committee of the NIE
- o Advisory board of the Central Institute of Educational Technology
- o Advisory board of Pandit Sunderlal Sharma Central Institute of Vocational Education
- o Managing committees of the Regional Institutes of Education
- o Advisory Boards of Departments of the NIE

Functions of the council are looked after by the director, joint director and secretary. Three deans, the dean (academic) coordinates the work of the departments of the NIE; the dean (research) coordinates the research programmes and looks after the work of the Educational Research and Innovations Committee (ERIC) and Dean (Coordination) coordinates the activities of the service/production departments and the Regional Institutes of Education. Presently, five Regional Institute of Education (RIE) is functioning as a part of NCERT, which are situated at different regions of India.

All the RIEs are mostly teaching and research campus. RIE conducts their regular courses such as: four year integrated B.Sc./B.A. and B.Ed., two years B.Ed., M.Ed. and research in education. Besides teaching, they conduct many training programmes for the in-service teachers of that region. In every RIE, there is a multi-purpose demonstration english medium school situated in RIE campus which primarily used to conduct teaching up to 12th standard and conducts practice of teaching for the students who are admitted in different teacher education programmes. Besides that the school is used for conducting many educational experiment and practical work. Details of the RIE and the states they cover are given below in Table 1.3:

Table 1.3 *Organizational Structure of NCERT*

Units	Structure	States cover
NCERT Head Office, New Delhi	Director, Joint Director, Secretary	All the Indian States and Union Territory
RIE Ajmer	Principal, Heads	Chandigarh, Haryana, Himachal Pradesh, J & K, Delhi, Punjab, Rajasthan, U. P., Uttarakhand
RIE, Bhopal	Principal, Heads	Chhattisgarh, Dadra and Nagar Haveli, Daman & Diu, Goa, Gujarat, Maharashtra, Madhya Pradesh
RIE, Bhubaneswar	Principal, Heads	Andaman and Nicobar Islands, Bihar, Jharkhand, Odisha, West Bengal
RIE, Mysore	Principal, Heads	Andhra Pradesh, Karnataka, Kerala, Lakshya Deep, Puducherry, Tamil Nadu
NE-RIE, Shillong	Principal, Heads	Arunachal Pradesh, Assam, Panipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura

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The Regional Institutes of Education (RIEs) located at Ajmer, Bhopal, Bhubaneswar and Mysore cater to the educational needs (pre-service and in-service education) of teachers/teacher educators in the states and UTs under their jurisdiction. Pre-service professional training programmes are offered to prepare school teachers for teaching of different school subjects. These are regional resource institutions for school and teacher education and they extend assistance in implementing the policies of the states/UTs and help in monitoring and evaluation of the centrally-sponsored schemes. The North-East Regional Institute of Education (NERIE), Shillong, caters to the in-service educational needs of North-Eastern States as indicated earlier. However, the pre-service teacher preparation programmes for the North-East Region are still being taken care by RIE, Bhubaneswar.

Objectives

The major objectives of the NCERT and its constituent units RIE are as follows:

- Undertake, promote, aid, and coordinate research in areas related to school education
- Prepare and publish model textbooks, supplementary material, newsletters, journals and other related literature
- Organize pre-service and in-service training of teachers
- Develop and disseminate innovative educational techniques and practices
- Collaborate and network with state educational departments, universities, NGOs and other educational institutions
- Act as a clearing house for ideas and information in matters related to school education
- Act as a nodal agency for achieving goals of universalisation of elementary education

In addition to research, development, training, extension, publication and dissemination activities, the NCERT is an implementation agency for bilateral cultural exchange programmes with other countries in the field of school education. The NCERT also interacts and works in collaboration with the international organizations, visiting foreign delegations and offers various training facilities to educational personnel from developing countries.

Role and function

The major role and function of NCERT focuses on six areas such as research, development, training, extension and dissemination, publication, and exchange programmes. Let us discuss the specific role NCERT.

Research

Following are some points included under research:

- Conduct and support research and offer training in educational research methodology

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- NIE, RIE, CIET, and PSSCIVE undertake programmes of research related to different aspects of school education, including teacher education
- Support research programmes of other institutions/organizations by providing financial assistance and academic guidance
- Provide assistance to research scholars for publishing their Ph.D. thesis and also provide fellowship to conduct research in education and related areas
- Organize various courses for educational researchers and educational project undertakers
- Conduct countrywide educational research and surveys on the development of school education such as achievement of the students in various subjects, retention, dropouts, and pedagogical issues
- Collaborate with international agencies in inter-country research, projects, and comparative studies in school and teacher education

Development

NCERT performs the following functions related to development:

- Develops and renews curricula and instructional materials for various levels of school education and makes them relevant to changing needs of children and society
- Comes out with new innovative practices and methodology including pre-school education, formal and non-formal education, vocationalisation of education and teacher education
- Undertakes many developmental works in the field and domain such as educational technology, population education, women education, moral and value education, and education of the disabled and the children of special needs
- Suggests the state education department to use new techniques, methods, and technology in the field of school and teacher education

Training

NCERT performs the following functions under training:

- It conducts pre-service and in-service training of teachers at various levels—pre-primary, elementary, secondary and higher secondary, and also in such areas as vocational education, educational technology, guidance and counselling, and special education.
- RIEs of NCERT incorporates innovative features such as integration of content and methodology of teaching, long-term internship of teacher trainees in the actual classroom setting, and participation of students in community work in their pre-service teacher training programme.
- Presently, it practices to send their staffs to the rural schools to get school based experiences for three months in every three years. That helps the

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teacher educators to understand the development and the requirements of educational practices in ground root level.

- RIEs also undertake the training of teachers of the states and of state level institutions and training of teacher educators and in-service teachers.
- It trains thousands of teachers in India in a single effort, it uses two-way-audio and video teleconferencing in various issues. Teleconferencing on National Curriculum Framework 2005 is an example of such types of training module.
- It trains both in-service and pre-service teachers to be proficient in ICT.

Extension

Under extension, NCERT performs these functions:

- Organizes many extension services and programmes through its departments such as NIE, RIEs, CIET, PSSCIVE
- Works in close collaboration with various agencies and institutions in the states and also works extensively with Extension Service Departments and Centres in teacher training colleges and schools
- Provides assistance to various categories of personnel, including teachers, teacher educators, educational administrators, question-paper setters, textbook writers— conferences, seminars, workshops and competitions are organized as regular on-going programmes as a part of the extension activities
- Organizes various educational programmes in rural and backward regions to motivate, inspire, and to bring the rural talents to the main stream of the society.Organizes extension programmes throughout the country and union territories on special educational programmes for the children with special needs and differently abled

Publication and Dissemination

Under this, NCERT performs the following functions:

- Publishes textbooks for different school subjects for Classes I to XII in English Hindi, and Urdu
- Brings out workbooks, teachers guides, supplementary readers, research reports, etc. In addition, it publishes instructional materials for the use of teacher educators, teacher trainees and in-service teachers
- Publishes six educational journals in various fields such as Research in Education, New Trends in Education, Publishing Abstract of Good Educational Research, reflecting critical thinking in education on contemporary issues
- Publishes in-house journal called NCERT Newsletter both in English and Hindi language.
- Publishes teacher support materials subject wise which helps the teachers and the teacher educators to make use of content by properly designing with pedagogy

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Exchange Programmes

Under this, NCERT performs these functions:

- It studies educational problems and organize training programmes for personnel from developing countries, NCERT interacts with international organizations such as UNESCO, UNICEF, UNDP, NFPA and the World Bank.
- It acts as the secretariat of the National Development Group (NDG) for educational innovations. It is one of the associated centres of APEID.
- NCERT offers training facilities through attachment programmes and workshops to educational workers of other countries.
- It acts as a major agency for implementing bilateral cultural exchange programmes in the field of school education and teacher education by sending delegations to study specific educational problems and by arranging training and study visits for scholars from other countries.
- Educational materials are exchanged with other countries and through it, materials are received from other countries for comparing it and to produce quality materials for its students.
- It also organises faculty exchange programmes on request, and the faculty members are deputed to participate in international conferences, seminars, workshops, symposia.

1.5.3 State Council of Educational Research and Training (SCERT)

All Indian States have their State Council of Educational Research and Training (SCERT). SCERT works for educational development of School and Teacher education of the States. It initiates the State run project, carry on it, and implement the project lunched by centrally sponsored. It coordinates NCTE and NCERT in the matter relating to educational development of School and Teacher. Let us discuss the establishment, organizational structure, objectives, and major function of SCERT.

Establishment

The National Policy on Education (1986) had recommended the creation of state council of Educational Research and Training (SCERT) in each state to decentralize the functions of quality education, research and training. It also laid emphasis on the improvement of educational quality and suggested to adopt some programmes such as:

1. Improvement of curriculum
2. Teacher enrichment programme
3. Continuous and comprehensive evaluation
4. Quality textbooks
5. Improvisation and utilization of teaching aids, etc.

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Keeping the future in mind, alternative strategies like informal education and vocational education after Class XII has also been highlighted. SCERT has been given the responsibility to conduct these activities at the state level on behalf of NCERT for the improvement of education. Then after, various state governments started to establish SCERT in their state. State NCT of Delhi established its SCERT in 1988, Odisha in 1979, Tripura in 1996, Uttar Pradesh in 1981, Maharashtra in 1984, Andhra Pradesh in 1967 and accordingly in other states.

Organizational Structure

Organizational structure of State Council of Educational Research Training (SCERT) is not same as the NCERT. The governor of the State is the ex-officio president of the council and the minister of School and Mass Education of that state is the ex-officio senior vice president of the council. The executive committee of the SCERT acts as the governing body of SCERT and administers day-to-day affairs in accordance with the rules, regulations, and orders of the state and centre. School education secretary is the ex-officio chairperson of the executive committee and the director of SCERT is its member secretary.

The programme advisory committee of SCERT finalizes all the activities relating to training, extension, research, implementation of school development plans, and Sarva Shiksha Abhiyan undertaken by the council every year. Eminent educationist, representative of state and national level education organization such as NCERT, NUEPA, leading university, principals of the selected schools, becomes the members of the committee. Director of SCERT becomes the chairperson of the committee. The organizational structure of SCERT Odisha, has been described below for understanding:

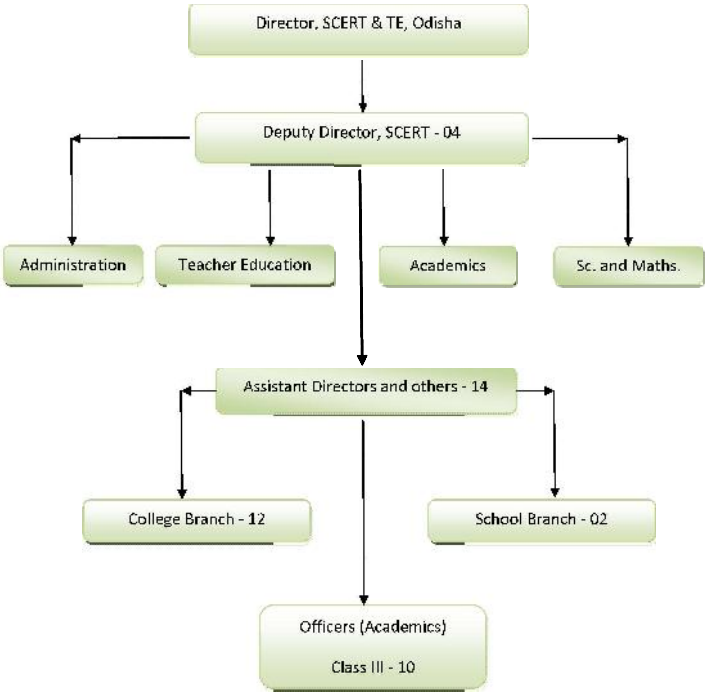

Fig. 1.2 *Organizational Structure of SCERT, Odisha: An Example*

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Director of SCERT holds the apex position in the official working, next to four deputy directors, one for each department—administration, teacher education, academics, and science and mathematics. In the chronology, next are fourteen assistant directors out of which twelve are in college branch, i.e., Teacher Education Institutes and two in school branch. Academic officers are under assistant directors distributed in different subject areas. It governs Training Colleges (TC), College of Teacher Education (CTE), Institute of Advance Studies in Education (IASE), District Institute of Educational Training (DIET), and Certified Teacher (CT) Schools.

Objectives

The main objectives of SCERT in the states are as follows:

- To work in the areas of elementary education and teacher education programme (elementary and secondary) in the state
- To organize pre-service training for prospective teachers, and capacity building programmes for in-service teachers, conferences, meetings, seminars and briefing sessions for state education officers and field functionaries
- To organize induction level training programmes for the new entrants / teaching workforce of the teachers training institutions
- To restructure syllabus and curriculum used at the elementary education and teacher education sector so as to make it need-based and relevant based and functional
- To undertake, aid, promote and coordinate research and innovation activities among faculty members of teacher training institutions
- To generate new ideas, innovations, improved practices in education, quality monitoring and supervision by conducting studies and researches both short term and longitudinal and their dissemination among faculty members of teacher training institutions
- To produce high quality teaching learning materials and enriched literature for teachers, trainers, supervisors and key educational functionaries
- To provide academic and professional support and guidance to agencies and institutions working in the field of education, population and development education, child rights and environment protection, and eco-friendly life style, community education
- To collaborate with other agencies, institutions, organizations for the cause of quality in school education and teacher education programme
- To implement educational projects relating to school and teacher education lunched by NCERT, NCTE, MHRD, and Department of School and Mass Education of various states

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Role and Functions

The following are the roles and functions generally SCERT undertakes in the state level:

- To act as an agent of change in school education including formal and non-formal education and teacher education
- To control and supervise the working of the Elementary Teacher Education Institutions (Secondary Training Schools, and Elementary Training Schools) and to coordinate the work of the Teacher Education Institutes
- To organize in-service training for different categories of teachers, inspecting officers, and teacher educators and to coordinate the work of other agencies operating at the state level
- To organize programmes, including correspondence-cum-contact courses for professional development of teachers, teacher educators, and inspecting officers
- To produce curricula, instructional materials, textbooks for the use of educational institutions, teachers of pre-schools and elementary schools
- To provide extension service to teacher training institutions at various levels
- To organize and implement the special education projects, sponsored by UNICEF, UNESCO, COL, NCERT, NCTE and other agencies, for qualitative improvement of school education, teacher education and supervisors of education
- To prescribe curricula and textbooks for the schools and teacher training institutes
- To produce instructional materials for the use of teacher educators and school teachers
- To conduct studies and investigations on various problems of education
- To evaluate the adult and non-formal educational programme or any other programme relating to its jurisdiction
- To conduct public examinations specially at terminal stages like end of Class III and Class V with a view to controlling quality of education and selecting candidates for scholarships through such examinations
- Provides resource support in terms of development of curriculum and textbooks, training packages, prototype teaching learning materials, capacity building of district resource groups and block resource groups for DPEP / SSA and mid-day-meal and other projects
- Provide assistance to preparation of perspective plan and annual work plan and budget for DPEP / SSA
- Preparation of perspective plan and annual work plan and budget for teacher education
- Introducing distance education programme for training of untrained elementary school teachers

- Monitoring of schools, CRCs and training programmes by SCERT and DIETs
- Renewal and revision of teacher education curriculum – both elementary and secondary
- Disaster management and preparedness programmes in schools
- Conducting NRTS examination in the state
- Conduction of studies sponsored by NCERT, NCTE, NIEPA, UNICEF, DPEP / SSA, EFA Society
- Preparation of 'Vision 2020: An agenda for School and Mass Education: Report of the Task Force'
- Implementation of externally assisted projects: Population and Development Education
- Opening of state open school under the aegis of National Institute of Open Schooling
- Collaboration with NGOs working for education

1.5.4 District Institute of Education and Training (DIET)

District Institute of Education and Training (DIET) is the ground level institute to prepare teachers for elementary classes. It organizes training and orientation programmes relating to elementary education. It also trains the SMC members, parents, village workers relating to various projects undertaken by state and central government.

Establishment

According to Education Commission (1964-66), 'Of all the factors that influence the quality of education … the quality, competence and character of teachers are undoubtedly the most significant'. All these characteristics of a teacher depend majorly on the quality of training and the support that are provided to them. Due to the increase in elementary and adult education, the state level agencies found it difficult to manage. The NPE and POA envisaged addition of a third-district level-tier to the support system in the shape of District Institutes of Education and Training (DIETs).

DIETs were expected to have a better control of the institutes as they would be closer to them and more aware of their problems and needs. In accordance to the provisions of NPE, a centrally-sponsored Scheme of Restructuring and Reorganization of Teacher Education was approved in October 1987. One of the components of the scheme was to set up DIETs. Till October 1989, central assistance had been sanctioned under the scheme for setting up a total of 216 DIETs in the country. At present a total of 500 (approximate) DIETs exist in India.

Organizational Structure

District Institute of Education and Training (DIET) works under State Council of Educational Research and Training (SCERT) of the state. Principal works as the head of the DIET with teachers in different subjects and pedagogy teachers. Trainee

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teachers get complete education in content and pedagogy to transact school curriculum up to elementary level. Let us discuss detail structure of DIET.

Based on the above functions, a DIET would need to have staff strength in the following areas:

1. Foundations of education and pedagogy
2. The subjects taught at the elementary stages, namely
   (i) Languages taught at the elementary level in the district (these may be two, three or even four, depending on the number of languages which are introduced in a state at the elementary stage and factors like bilingual character of a district)
   (ii) Mathematics
   (iii) Social Science
   (iv) Science

Objectives

District Institute of Education and Training (DIET) has the following objectives:

- To conduct classes of regular teacher education programmes such as Diploma in Elementary Education or Diploma in Education
- To conduct programmes for elementary school and pre-school teachers (both pre-service and in-service)
- To organize specially designed courses for headmasters, officers of the education department, members of the school management committees (SMC), community leaders, elected heads of the *panchayati* institutions, block and cluster resource coordinators
- To actively participate in preparation of district plans for UEE
- To work for implementing Right to Education Act, 2009
- Development of district specific curricula and teaching learning materials
- To provide support to Block Resource Centres (BRC) and Cluster Resource Centres (CRC) for elementary schools and programmers of UEE
- To actively engage in action research and experimentation for an improved understanding of elementary education and to solve the difficulties of the teachers and the students in teaching-learning and other related areas
- To tackle specific problems of the district and the State for achieving the objectives of UEE and to provide quality elementary education

Role and Functions

The DIETs are envisioned as 'academic lead institutions' to provide guidance to all academic functionaries in the district. The main functions and roles undertakes by DIETs are as follows:

- Quality teacher training, leading to high learning levels among students

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- Improving pedagogy and making classroom learning interesting
- Developing curriculum and academic material such as child-friendly textbooks
- Planning and management of primary, adult education and non-formal education of the district
- Conducting research, developing low and no-cost teaching aids, supporting innovative materials and methods
- Evaluating students, teachers, programmes and institutions
- Using technology in education and making the elementary teachers' technology friendly
- Organizing training and orientation programmes for the:
  - Elementary school teachers (both pre-service and in-service education)
  - Headmasters, heads of schools and officers of education department up to block and cluster level
  - Instructors and supervisors of non-formal and adult education (induction level and continuing education)
  - Members of school management committee (SMC), community leaders, youth and other volunteers who wish to work as educational activities
  - Resource persons who wish to conduct suitable programmes for the target groups in BRC and CRC centres other than the DIET
- Provides academic and resource support to the elementary and adult education systems in the district like development of locally relevant materials and teaching aids, evaluation tools, and serving as an evaluation centre for elementary school and programmes of NFE/AE
- Conducts action research and experiments to deal with specific problems of the district in

1.5.5 Academic Staff College (ASC)

The main philosophy of Academic Staff College (ASC) is to keep in mind that the teacher is central to the system. While it is universally accepted that the teacher is the pivot of the educational system, our system does not provide adequate opportunities for their professional development. It is, therefore, necessary to develop inbuilt mechanisms to provide opportunities for teachers. It is also accepted that a teacher must not be confined only to transmitting information but should also orient students to meet the challenges of life, to become better citizen and not merely a trained professional. It was believed in the past that a college/university teacher learnt the 'art' of teaching on the job by emulating his/her own teachers or senior colleagues. Today, it is no longer adequate to expect a newly appointed teacher to acquire the 'art' of teaching by emulating.

Establishment

National Policy on Education (1986) recommended establishing teaching department in the universities to orient and refresh the university teachers and make them

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acquainted with the development in higher education in the world. University Grants Commission (UGC) took the responsibility to establish Academic Staff Colleges (ASC) in various universities to induct and train the newly recruited teachers in colleges and universities. The NPE realized the need for providing opportunities to teacher to help better their career so that they are able to fulfil their role and responsibilities.

It was proposed to enhance their motivation skills and knowledge through systematic orientation in specific subjects, techniques and methodologies, and thereby inculcate in them the right kind of values that would in turn encourage them to take initiatives for innovative and creative work. At present, sixty-six Academic Staff Colleges are functioning in our country which conducts orientation and refresher courses for teachers contributing in higher education.

Organizational Structure

Organizational structure of Academic Staff Colleges (ASC) is very simple. It has a director in the rank of a professor who heads the ASC. Two other faculties, one in the rank of associate professor and other in the rank of assistant professor, is appointed to carry out the work. Faculties in ASC do not necessarily belong to a single subject rather they represent various subjects. They organize the orientation and refresher programme in which the renowned professors from different universities are invited to lead the session. Sometimes, the faculties of ASC also take some of the sessions in general orientation programme.

Each academic staff college has an academic advisory committee with representatives from universities and colleges to advice on its programmes and the selection of resource persons. The vice-chancellor of the university at which ASC is located is the chairman of the committee. The committee constitutes of the following:

1. Vice-chancellor of the host university
2. One vice-chancellor from outside and one within the state
3. One UGC nominee
4. Two directors of ASC, of which one is from outside the state
5. Two eminent professors
6. Two heads of department of university
7. Two principals of affiliated colleges

The director is the member secretary. The registrar and finance officer are special invitees. All members are nominated by the chairman. The term of the advisory committee is two years. The advisory committee meets twice in a year. All matters relating to the ASC including financial matters is placed before the committee. Let us discuss the main objectives of ASC.

Objectives of Academic Staff College

The objectives of the ASCs are to enable newly appointed lecturers to:

- Understand the significance of education, higher education in particular, in the global and Indian contexts

- Understand the linkages between education, economic and socio-economic and cultural development, with reference to Indian polity
- Acquire and improve art of teaching at the college/university level
- Keep abreast of the latest developments in their specific subjects
- Understand the organization and management of a college/university and understand the role of teachers in the total system
- Utilize opportunities for their personality development, initiative and creativity
- Be computer literate as well learn to use ICT in teaching and learning process

Roles and Functions of Academic Staff Colleges

Academic Staff Colleges have to plan, organize, implement, monitor and evaluate orientation courses for newly appointed college/university Assistant Professors of one or more universities in a state. ASCs also organize refresher courses for serving teachers. They also organize refresher courses for serving teachers, and orientation programmes for senior administrators and heads of department, principals.

An ASC will:

- Formulate a programme of orientation
- Identify resource persons in various fields of specialisation for conducting the orientation and refresher courses
- Familiarize the resource persons with the philosophy and guidelines of the courses
- Set up a documentation centre cum library for reference and source materials necessary for the courses
- Produce specially designed material required for effective implementation of the courses
- Organise, monitor and evaluate courses for teachers
- Create a culture of learning and self-improvement among teachers
- Organize orientation programmes for heads of department, principals, deans and other decision-makers
- Provide a forum for serving teachers to keep themselves abreast of the latest developments in various subjects
- Extends opportunities to widen their knowledge and pursue research studies
- Provide an introduction to new methods and innovations in higher education

The thrust areas for each refresher course are decided by the director in consultation with the course coordinator.

Apart from fulfilling these functions, ASC also undertakes many subject-specific programmes from time-to-time. Though all the subjects come under the jurisdiction of ASC still it maintains a careful strategy to provide justice to all the subjects.

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For operating courses like B.Ed and M.Ed, universities generally take permission from NCTE. Academic Staff College organizes refresher courses for education faculties both in general and teacher education. It organizes the refresher course in the university's teaching department of education and in case if the university does not have a department of education or teacher education, it organizes the programme in the Institute of Advance Studies in Education affiliated to that university. Head or senior faculty in education becomes the coordinator of the refresher course and the eminent scholars in education from different parts of the country and from the same university are invited to deliver lecture in that programme. It is something different from school education.

The matters relating to higher studies in education which is closely associated with teacher and school education becomes the matter of deliberation. Comparative development of teacher education in India with other developed and developing countries are also dealt with during the refresher programme in education. Innovative research in education is also another important area of discussion in the refresher course of Academic Staff Colleges. For your understanding, a detailed course structure of an orientation and refresher course has been given below:

Orientation Programme

Orientation programmes organized by UGC-ASC are generally of four weeks duration. The main objective of organizing orientation programme is to understand the significance of education in general and higher education in particular in the global and Indian contexts. In order to achieve the objectives of organising orientation programme, ASC develops the curriculum in four different components which is covered in minimum 144 contact hours, i.e., six hours daily for a four-week programme.

Table 1.4 *Curriculum Components in Orientation Programme*

Component	Activity details
Component A :	Awareness of Linkages between Society, Environment, Development and Education — This component aims at helping teachers to realize the larger context of education and the role of a teacher in society.
Component B :	Philosophy of Education, Indian Education System and Pedagogy — This component aims at imparting basic skills and sensitivities that a teacher needs for effective classroom teaching.
Component C :	Resource Awareness and Knowledge Generation — This component aims at helping the teachers to be self-sufficient, and be continuously abreast of new knowledge and techniques, processes, methods and sources of knowledge.
Component D :	Management and Personality Development — Under this component, teachers are familiarized with the organisation and management of the college/university. They are made aware of the ways in which they may develop their own personalities.

Refresher Programme in Education

The course curriculums of refresher courses are developed in consultation with the concerned departments. The course is so prepared that the content has essential percentage of the core material in the subject along with required percentage of areas of emergence and priority, essential laboratory and practical components, and computer application with relevant advancement of the subject.

The curriculum of a refresher course in education has been designed keeping in view the following topics:

- Use of SPSS for data analysis in educational research
- Concept of educational research and methodology used
- Calculation of reliability and validity of constructed text
- How to write research paper and research project report
- Research in parenting
- NCF 2005 and NCFTE 2009
- Science curriculum in the context of NCF 2009
- Writing standard Self-Learning Materials (SLM) for distance education
- Right to Education Act 2009 and Right to Information Act
- Qualitative and quantitative research in education
- Writing standard Bibliography and reference section
- Social inclusion and exclusion

All the above elements are carefully deliberated during refresher programme organized by Academic Staff Colleges of University Grants Commission. It covers most of the issues relating to teacher education. In this way, ASC is associated with the development of teacher education. Though its contribution is specified still, it serves to achieve excellence in teacher education programme by organizing fruitful orientation and refresher courses for the teacher educators.

CHECK YOUR PROGRESS

11. Under whom does the regulatory bodies in India function?
12. When was the NCTE set up in India?
13. What is the main philosophy of Academic Staff College (ASC)?
14. What is the main objective of the orientation programmes organized by UGC-ASC?

1.6 SUMMARY

- A close analysis of the qualities of teacher reveals that teaching is a complex process and, therefore, teachers should be trained from time-to-time.
- Teacher education institutions have the potential to bring changes within educational systems that will shape the knowledge and skills of future generations.
- Teacher education helps teachers to increase their competence and proficiency to meet the professional challenges and professional requirements.

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- Different countries provide teacher education programmes at different levels.
- While a teacher is teaching, he/she makes many tactics and strategies such as introducing the lesson, asking questions in between, giving reinforcements to gain students' attention.
- Through training, the teachers also learn effective classroom management skills, use of instructional materials and good communication skills.
- Pedagogical theory is based on psychological, philosophical and sociological aspects that would help teachers to have a sound basis for using teaching skills in the classroom.
- Teacher education is a combination of the three components mentioned above, which after better training help teacher educators to develop the right kind of skills, beliefs, caliber, attitude and other skills required to become a better teacher.
- Teacher education programmes are continuous in nature, which means it starts with orientation followed by practice session, and finally, updation of the skills developed as part of the training programme.
- Teacher education's curriculum has sound meaningful theoretical bases which suits the practical situations at a later stage.
- A country like India has developed teacher training programmes which meet the requirements at various levels, i.e., pre-primary to higher secondary.
- The core concern of teacher training programmes is to develop sound knowledge in subject areas at various levels.
- Teacher education in India has undergone a lot of changes. Teachers have to focus on the changing global scenario.
- Consequently, the emerging structures and designs of the curriculum shall lay greater emphasis on the ideas, practices and experiences that have emerged in India through the contributions of thinkers like Mahatma Gandhi, Vivekananda, Rabindranath Tagore, Zakir Hussain, Sri Aurobindo, Giju Bhai and many others. Teacher education should itself transform to meet these challenges and provoke us to remove the old traditional methods of teacher education at various levels.
- Literally, training is a 'well-organized activity with objective of imparting clearly set instructions or pre-decided activity to improve the receivers performance or make them to achieve certain level of knowledge or specified skill'.
- As we know, in ancient India, the style of education was concentrated on oral method, which implies teachers had to be proficient in oral method of teaching.
- The scope of teacher education influenced the method of training in teacher education programmes. Slowly, the terminological term from teacher training has been replaced with 'teacher education'.
- Compared with the traditional teacher- training programmes, teacher education has moved ahead and is more suitable for the present scenario.

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- Teacher education as any other professional programme must be thought of in new dimension in its scope and aim. The twenty-first century provides ample opportunities for development of all round personality even without education.
- When the Upanishad was written, the teacher enjoyed high privileges, but as time passed, the dignity and power of teachers declined.
- In the Vedic period, religion played a prominent role in education. The aim of education then was to attain salvation (*Moksha*).
- Teachers of Vedic age were men of high calibre in terms of knowledge and spiritual progress. Gurus maintained high reputation in the society.
- In Upanishad period, after the spread of Vedic culture, the sacrificial rituals dominated and the Brahmin priests had the highest position in society.
- Listening to the spoken words, comprehension of meaning, reasoning leading to generalization, confirmation by a friend or a teacher and application were the five steps to realize the meaning of a religious truth practiced in ancient India.
- 'Individual system of education' was followed in *gurukuls* where the students studied different subjects and in addition had to perform duties like grazing cows, fetching wood from forest, and begging for alms.
- Invasion of the Muslims paved the way for Muslim education in India. Even though Muslim education came into existence, some parts of the country still had the brahminical system of education.
- The Muslim rulers started education by opening educational centres called *Maktabas* (schools) and *Madrasahs* (colleges).
- During the early periods of the British rule, enormous formal schools came into existence and the need for teacher training was drastically felt.
- In 1826, Sir Thomas Munro had initiated steps to establish teacher training schools in every collectorate (district headquarters of the government) known as principal schools.
- The secretary of Bombay in 1845 opened a normal class in Elphistone institution. This was opened for fourty primary teachers which included fifteen Marathi, fifteen Gujarati and ten Kanarese.
- At the end of the World War in 1917, the Calcutta University Commission was set up to look into the quality of teaching in Calcutta University under the leadership of Sir Michael Sadler.
- Sadler Commission recommendations opened new universities in different parts of the country, like in, Mysore, Patna, Banaras, Dacca, Aligarh, and Hyderabad, and some of these universities started with the establishment of Teacher Education Departments. Similarly, the number of teacher training colleges also increased in the country.

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- During World War II, the country was facing many political challenges. Abbott-Wood report was published at this time, which had indirect effect on the prevailing teacher education system of the country.
- As a post-war expansion of education after World War II, a new educational scheme called Sergent Scheme was submitted to the Government of India under the leadership of Sir John Sargent.
- In 1956, the government appointed an expert committee with Dr. E. A Pires as Head to design a new syllabus for secondary teachers training. The committee, later known as Pires Committee, published the draft of recommendation, which was accepted at the Conference of the Principals of Training Colleges in 1957.
- In the history of education, another commission was appointed under the chairmanship of S. Kothari (popularly known as the Kothari Commission) to review the education system in 1964.
- The number of school expanded drastically in 1980s which increased the demand for teachers on a large scale.
- The Government of India introduced a new policy, the National Policy on Education in 1986 to reframe the educational system.
- As per recommendations of NPE and POA 1992, a wide number of teacher education institutions have opened which include 461 DIETS, eighty-five CTES and 371 IASE.
- National Council of Educational Research and Training (NCERT) is a premier organization in India to take care of the matters relating to school education and research in education.
- For operating courses like B.Ed and M.Ed, universities generally take permission from NCTE. Academic Staff College organizes refresher courses for education faculties both in general and teacher education.

1.7 KEY TERMS

- **Pedagogical:** It refers to something relating to teaching.
- **Assimilation:** It means the process of taking in and fully understanding information or ideas.
- **Cognitive:** It refers to something relating to cognition.
- **Remedial:** It refers to something giving or intended as a remedy or cure.
- **Anthropology:** It means the study of human societies and cultures and their development.

1.8 ANSWERS TO 'CHECK YOUR PROGRESS'

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1. Teacher education is a combination of teaching skills, pedagogical theory, and professional skill.
2. Pre-primary teacher education focuses on pedagogical aspects and on how to deal with the psychological development of elementary students.
3. The core concern of teacher training programmes is to develop sound knowledge in subject areas at various levels.
4. Oral method of teaching requires the oral skill of explaining the subject content.
5. The aim of education during the Vedic period was to attain salvation (*Moksha*).
6. The aim of education during the Upanishad period was:
   - To enable realization or true knowledge and achieve the absolute
   - To meditate and think
7. The three methods of teaching in the Upanishad period were:
   - *Sharvan* (learning)
   - *Manan* (meaning)
   - *Nidisdhyasan* (realization and experience)
8. The motto of education during the Brahminical period was 'simple living and high thinking'.
9. Synchronizing education goals with national goals of development helps to develop human resources.
10. Higher secondary stream of education offers two streams, namely, academic and vocational.
11. All the regulatory bodies function under the umbrella of University Grants Commission (UGC).
12. The NCTE was set up in 1973 in India.
13. The main philosophy of Academic Staff College (ASC) is to keep in mind that the teacher is central to the system.
14. The main objective of organizing orientation programme is to understand the significance of education in general and higher education in particular in the global and Indian contexts.

1.9 QUESTIONS AND EXERCISES

Short-Answer Questions

1. What is teacher education? What is the significance of teacher education?
2. What are the different training methods in teacher education?

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3. State the differences between training and education.
4. How does the National Council for Teacher Education (NCTE) define teacher education. Provide a brief analysis of this definition.
5. What is the literal meaning of 'Vedas'? Name the four types of Vedas. What do they represent?
6. List the various characteristics of Vedic education.
7. Explain the status and role of the *gurus* in the Indian society.
8. List the chief characteristics of the Brahminical period.
9. Write a short note on the workings of the British 'Bell-Lancaster System'.
10. Write a short note on the contribution of Viceroy Lord Curzon in the development of education and teacher education in India.
11. Write a short note on the changes brought about in India by the Sadler Commission.
12. When and how did the terminology of 'teacher training' change to 'teacher education' in India?
13. List the two types of training institution for teacher training recommended by the Secondary Education Commission.
14. Write a short note on pre-primary stage in formal education.

Long-Answer Questions

1. Discuss the nature of teacher education.
2. Discuss and explain the objectives of teacher education.
3. Why do we need teacher education? Describe how teacher education helps pedagogy and in the nation-building process.
4. Explain how teaching and learning took place in the Buddhist period.
5. How was Muslim education introduced in India? Explain how tecahing and learning took place in *Maktabas*.
6. Which three agencies trained teachers during the British rule in India? How was the process of receiving grants carried out in India during that time?
7. Explain how Wood's Despatch helped the university system in India.
8. When was the Sergent Scheme established? Discuss its major contributions in the field of education.
9. Evaluate the general objectives of teacher education programmes.
10. Discuss the objectives of academic and vocational stream of higher education.
11. Evaluate the main objectives of SCERT in the states in India.

1.10 FURTHER READING

Priestley, Mark; Gert Biesta; Sarah Robinson. 2015. *Teacher Agency: An Ecological Approach*. New York: Bloomsbury.

Cornbleth, Catherine. 2013. *Understanding Teacher Education in Contentious Times: Political Cross-Currents and Conflicting Interests*. New York: Routledge.

Lassonde, Cynthia. 2008. *Current Issues in Teacher Education: History, Perspectives, and Implications.* Illinois: Charles C Thomas Publishers Ltd.

Ball, Arnetha F; Cynthia A. Tyson. *Studying Diversity in Teacher Education*. United Kingdom: Rowman and Littlefield Publishers Inc.

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UNIT 2 TYPES OF TEACHER EDUCATION PROGRAMMES

Structure

2.0 INTRODUCTION

Teacher education is the key to educational development in any country. The history of teacher education in India is as old as its education system. Though at that time, it was quite informal and inconsistent everywhere. The formal system of teacher education in India started in the 17th century. The East India Company and British government took care to modernize and expand the system of teacher education in India. After independence, the efforts to upgrade and modernize teacher education continued. NCTE started functioning in 1973, though it got statutory status in August 1995. This unit discusses the concept of pre-service teacher education, focuses on its curriculum and evaluation, and, explaining its importance, analyses the present scenario of in-service training of teachers and evaluates the concept and workings of orientation and refresher courses.

2.1 UNIT OBJECTIVES

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After going through this unit, you will be able to:

- Discuss the concept of pre-service teacher education
- Assess curriculum and evaluation of pre-service teacher education
- Explain the importance of in-service education for teachers
- Analyse the present scenario of in-service training of teachers
- Evaluate the concept and workings of orientation and refresher courses

2.2 PRE-SERVICE AND IN-SERVICE TEACHER EDUCATION

There are two types of teacher education programmes in India, but nomenclature of diploma and degrees vary a lot. Since its inception, NCTE has been quite active in determining their objectives, content, methodology, technology and evaluation scheme to sustain the relevance and importance of teacher education programmes. Even then, there are several shortcomings in these programmes for which several suggestions are given in this section.

It is well recognized that the quality and amount of learner achievement are determined by teacher's competency, sensitivity and their motivation. The National Council for Teacher Education has defined teacher education as a programme of education, research and training of persons to teach from pre-primary to higher education level. Teacher education is a programme that is related to the development of teacher proficiency and competence that would enable and empower the teacher to meet the requirements of the profession and face the challenges therein.

According to *Goods Dictionary of Education Teacher*, education means all the formal and informal activities and experiences that help qualify a person to assume responsibilities of a member of the educational profession or to discharge her/his responsibilities more effectively. In 1906-1956, the programme of teacher education was called teacher training. It prepared teachers as mechanics or technicians and had narrower goals, with its focus being only on skill training.

The viewpoint of teacher education was, therefore, narrow and its scope was limited. According to W. H. Kilpatrick:

> Training is given to animals and circus performers, while education is to human beings. Teacher education encompasses teaching skills, sound pedagogical theory and professional skills. Teacher Education = Teaching Skills + Pedagogical theory + Professional skills.

Teaching skills would include providing training and practice in the different techniques, developing approaches and strategies that would help teachers plan and impart instruction, provide appropriate reinforcement and conduct effective assessment. It includes effective classroom management skills, preparation and use of instructional materials and communication skills.

Pedagogical theory includes the philosophical, sociological and psychological considerations that would enable the teachers to have a sound basis for practicing the teaching skills in the classroom. The theory is stage specific and is based on the needs and requirements that are characteristic of that stage.

Professional skills include the techniques, strategies and approaches that would help teachers to grow in the profession and also work towards the growth of the profession. It includes soft skills, counseling skills, interpersonal skills, computer skills, information retrieving and management skills and above all, lifelong learning skills. An amalgamation of teaching skills, pedagogical theory and professional skills would serve to create the right knowledge, attitude and skills in teachers, thereby promoting holistic development.

Teacher Education at Different Levels

Teacher education refers to the teachers engaged at all levels of education, namely, pre-primary, primary, elementary, secondary, higher secondary and tertiary. The needs and necessities of students and education vary at each level. Therefore, level and stage-specific teacher training is necessary.

Teacher education also helps in the expansion of teaching skills in teachers of professional institutions. The teachers in professional institutions have only the imaginary and practical knowledge of their particular subjects but they require specialized teacher training inputs to deal with students entering their professions.

Teacher education also reaches special education and physical education. Consequently, where there are teachers, there would be teacher education. The knowledge foundation is adequately specialized and diversified across stages in order to develop successful processes of preparing new teachers for the functions which a teacher is expected to perform at each stage.

2.2.1 Pre-service Teacher Education

Pre-service teacher education stands for the programme which is designed to prepare teachers before going in for service. Different programmes are designed for different levels of school education, i. e., pre-primary, elementary and secondary education. Teacher education programmes for these levels of school education are known as:

1. Pre-primary teacher education
2. Elementary teacher education
3. Secondary teacher education

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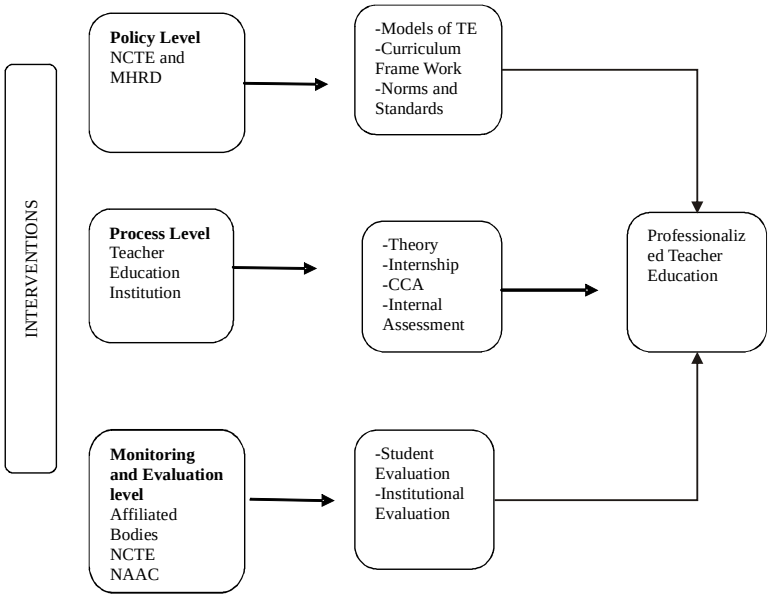

Fig. 2.1 *Professional Pre-Service Teacher Education*

1. Pre-primary Teacher Education

Pre-primary teacher education refers to teacher education programme which is designed to prepare teachers for primary classes, nursery and kindergarten. The duration of this course is one year. In India, center as well as state governments are yet to accept the responsibilities of preparing teachers for these classes. As such, most of the nursery teacher training institutions are run by non-governmental bodies. However, in Delhi, state as well as center is preparing teachers for nursery classes.

Fig. 2.2 *Activity of Pre-Primary Teacher Education*

The minimum qualification for these courses is 10+2. One of the department of NCERT guides nursery teacher training institutions in the development of appropriate syllabi for different classes and transactional approaches which the teachers should adopt while dealing with kids. This programme develops certain specific abilities, skills, and attitudes among prospective teachers to deal with children of early childhood stage.

2. Elementary Teacher Education

Elementary teacher education, including primary teacher education, is designed to prepare teachers from classes I-VII. In some states, however, these teachers are required to teach primary classes only, i.e., I-V. The duration of the courses is of two years. In some states like Andhra Pradesh and Manipur, the duration of programme is of one year.

Elementary teacher training institutes located in different states offer the course. District Institute of Education and Training (DIETs) have been set up by MHRD and offer elementary teacher training courses. Besides these, private DIETs and are also offering courses under the direct control of the concerned SCERT in their respective states.

Recently, Delhi University has taken initiative to start an innovative programme in the field of elementary teacher education. This Bachelor in Elementary Education (B. El. Ed.) programme is also preparing teachers of elementary level. This integrated programme is of a four year duration and prepares teacher with a university degree. Many private universities, like Amity University in Noida, is also preparing their teachers in a similar manner.

3. Secondary Teacher Education

Secondary teacher education programme is organized by Teacher Education Colleges affiliated to different universities and recognized by NCTE. The duration of this course is one year. However, if the course is of innovative nature, the duration may vary from one-and-a-half years to two years. In some state universities, departments of teacher education also offer B.Ed. programmes.

Some B.Ed. programmes are also known as B.Ed in special education. These programmes are recognized by Rehabilitation Council of India (RCI). The passed out students are eligible to be selected as special educators. Jamia Millia Islamia is also offering courses in B.Ed. in Special Education. The minimum qualification to for B.Ed programme is fifty per cent marks in graduation. Some universities also conduct written tests followed by interviews.

2.2.2 In-service Teacher Education

In-service education may be defined as continuing education of teachers and other educators which commences after initial professional education is over and leads to the improvement of professional competence of educators all throughout their careers. Hence, there is a need of some sort of provision which may make the teacher up-to-date with respect to the knowledge of his subject of teaching, methods and techniques, innovative ideas in each sphere of his academic life. For the sake of this reason, the idea of in-service education has been emerged. Following are a few definitions of in-service training:

Definition of in-service training

1. M. B. Buch, 'In-service education is a programme of activities aiming at the continuing growth of teachers and educational personnel in-service.' It is the

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sponsoring and pursuing of activities which bring new insight, growth, understanding and co-operative practices to the members of teaching profession and arouses them to action to improve them in every possible manner.

It includes all activities and experiences participated in by the educational personnel in education during their services. These activities are planned and organized by various agencies to help the educators to improve and mature as people and as professionals.

2. Henderson defines the in-service training (INSET) in the following words:

   For the good teacher, every fact of his knowledge, skills, personality and interests are of potential professional value. Hence, every experience he undergoes during his career, however, irrelevant it may appear, may be described as in-service training, may therefore, in the most general sense, be taken to include everything that happens to a teacher from the day he retires which contributes directly or indirectly to the way in which he executes his professional duties.

   It is clear from the above mentioned definitions that the INSET is primarily meant for regular serving teachers. It subjects the serving teachers to such activities which may enhance their professional knowledge, interest and attitude, so that they are able to maximize their pupil's learning and, in turn, derive maximum inner satisfaction and sense of achievement.

Objectives of Teacher Education

Teacher education has to become much responsive to the rising demands of the school system. For this, it has to prepare teachers for:

- Encouraging, supportive and humane facilitation in teaching-learning situations which enables learners (students) to discover their talents, to realize their physical and intellectual potentialities to the fullest, to develop character and desirable social and human values to function as accountable citizens
- A dynamic member of the group who makes conscious efforts to contribute the process of renewal of school curriculum to maintain its relevance to the changing societal needs and personal needs of learners, keeping in view the experiences gained in the past and the concerns and imperatives that have emerged in the light of changing national development goals and educational priorities
- Teachers who are reactive and responsive to the social contexts of education, the various disparities in the background of learners as well as in the macro-national and global contexts, national concerns for achieving the goals of equity, parity, and social justice

  To be able to realize such expectations, Teacher education has to comprise such features as would enable the student teachers to:

  (i) Care for children

  (ii) Understand children in social, cultural and political contexts

(iii) Consider learning as a search for meaning out of individual experiences

(iv) Understand the way learning takes place, feasible ways of creating conducive conditions for learning; differences among students in respect of the kind, pace and styles of learning

(v) View knowledge generation as a continuously evolving process of reflective learning

(vi) Be receptive and constantly learning

(vii) View knowledge not as an external reality embedded in textbooks, but as constructed in the shared context of teaching-learning and personal experience

(viii) Appreciate the potential of productive work and hands-on experience as a pedagogic medium both inside and outside the classroom

(ix) Analyze the curricular framework, policy implications and texts

(x) Have a sound knowledge base and basic proficiency in language

The objectives of teacher education would therefore be to:

- Make available opportunities to observe, engage, communicate with and relate to children
- Provide opportunities for self-learning, reflection, assimilation and articulation of new ideas; developing capacities for self-directed learning and the ability to think, be self-critical and work in groups
- Provide opportunities for understanding self and others (including one's beliefs, assumptions and emotions); developing the ability for self-analysis, self-evaluation, adaptability, flexibility, creativity and innovation
- Provide opportunities to enhance understanding, knowledge and examine disciplinary knowledge and social realities, relate subject matter with the social milieu and develop critical thinking
- Provide opportunities to develop professional skills in pedagogy, observation, documentation, analysis, drama, craft, story-telling and reflective inquiry

CHECK YOUR PROGRESS

1. How does the National Council for Teacher Education define teacher education?
2. What does pedagogical theory include?
3. What is meant by pre-service teacher education?

2.3 CURRICULUM AND EVALUATION OF PRE-SERVICE TEACHER EDUCATION

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The Indian pre-service teacher education system is chiefly divided into two categories, viz., Elementary Level Teacher Education programmes and Secondary Level Teacher Education programmes. The programmes in the first category are basically diploma programmes and are named after their area of specialization. These are Nursery Teachers' Training (NTT), Early Childhood Care and Education (ECCE), Diploma in Elementary Teacher Training (DETT), and Bachelor of Elementary Education (B.El.Ed.). Out of these, NTT, ECCE, DETT are two year programmes whereas B.El.Ed. is a four year degree programme.

Nursery Teachers' Training (NTT) and Early Childhood Care and Education (ECCE) are specialized courses for teaching at pre-primary level. Diploma in Elementary Teacher Training (DETT) and Bachelor of Elementary Education (B.El.Ed.) programmes are though different in duration and status (DETT is a Diploma programme but B.El.Ed. is a degree programme) but are both meant for teaching till elementary standard.

Meaning and Definition of Curriculum

Curriculum is the sum total of all the activities in an academic programme. In other words, curriculum is the totality of learning experiences provided to students so that they can attain knowledge, experience and skills through a variety of learning activities in classroom and schools. Devising the curriculum involves planned interaction of pupils with instructional content, materials, resources and processes for evaluating the attainment of educational objectives.

In this sense, it may be said that while education is a process, and curriculum is the means to this process. Curriculum means two things—first, the range of courses from which students choose what subject matters to study, and second, a specific learning programme. While education deals with how and when, curriculum deals with what. Defining the term curriculum, John Kerr says that it is the sum of the learning which is planned and guided by the school, whether it is carried on in groups or individually, inside or outside the school. Another definition by Kerney and Cook mentions:

> It is a complex of more or less planned or controlled conditions under which students learn to behave and to behave in their various ways. In it, new behavior may be acquired, present behavior may be modified, maintained or eliminated; and desirable behavior may become both persistent and viable.

2.3.1 Curriculum Planning and Curriculum Development

The process of curriculum planning and development has undergone tremendous changes due to philosophical, technological and pedagogical changes in schools. There are various bodies at different levels to plan and develop curriculum for different types of curriculum. The responsibility of preparing curriculum for teacher education programmes lies with the National Council for Teacher Education (NCTE).

The NCTE came into the arena of curriculum framing for teacher education in the year 1978.

A committee of experts prepared several guidelines for curriculum framework. These steps were later approved by the University Grants Commission's panel on teacher education. The modalities of curriculum framing as per this exercise are as follows:

- Relevance of the curriculum to the personal and social needs of children and society
- Flexibility within the framework of acceptable national goals and values
- Flexibility for mobility
- Flexibility for relevance
- Flexibility for continuing education
- Task oriented teacher education
- Practice teaching internship
- Interdisciplinary and integrated approaches in teacher education
- Education as a discipline
- The semester system, evaluation, and
- Experiments, innovations and research for development

Highlighting the need of a well-planned and quality centered curriculum of teacher education, the Kothari Commission (1964-66) mentioned:

> Essence of a programme of teacher education is quality and in its absence, teacher education becomes not only a financial waste but also a source of overall deterioration in educational standards.

In this background, the commission suggested various means of quality teacher education framing curriculum. The teacher education framework of 1978 was widely impressed with the suggestions of the Kothari Commission.

Redesigning Current Teacher Education Programmes

NCFTE 2009 has suggested the following with regard to pre-service teacher education:

1. A four-year integrated programme of elementary teacher education in select state universities and all central universities, in particular, IASE and select DIETs, could be undertaken in the initial phase.
2. XI Plan funding under the innovative education schemes should be canalized as a priority by the UGC to universities and select DIETs to institute four year Integrated Elementary Teacher Education Programmes.
3. As an interim measure, current teacher models of Elementary Teacher Education offered by the DIETs (such as the DT.Ed.) are required to redesign their curses as well as the programme structure to include the specific features and structural mechanisms proposed in the new framework in terms of curricular areas and transaction processes.

4. A review of the existing D.Ed. programmes is commissioned and the process of redesign of the curriculum in the light of the proposed process model should be completed in the next one or two years.

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The National Curricular Framework for Teacher Education 2009 has recommended that teacher education courses be reorganized. Thus, D.Ed. would be a two-year diploma after 10+2 and B.Ed. one year degree after graduation. This would provide enough time and opportunity for self study, meeting with teachers, visiting schools and classrooms, pedagogic hustle and bustle, and careful theoretical study. Any compromise on the duration of the initial education of teachers, for whatever reason, adversely affects the quality of teachers and teaching in schools.

The NCFTE 2009 recommends that current models of teacher education at all levels of school education be slowly changed by models of teacher education that merge general education with professional development along with a demanding internship with schools. These integrated models should be designed using the specific features outlined in the curricular areas and transaction process.

As an interim measure, current models of teacher education such as B.Ed. and D.Ed. are required to reframe their courses as well as the programme structure to include the specific features and structural mechanisms proposed in the new framework in terms of curricular areas and transaction processes.

The three areas—Area A, Area B and Area C—have been identified in the flow chart (Figure 2.3) as to cover both theory and practice.

Area A: Foundations of Education

Foundations of education provide teacher trainees with an array of opportunities to study and experience schooling over the academic year. Candidates prepare for the classroom by building a knowledge base that is deepened through observation and personal experience.

Area B: Curriculum and Pedagogy

The curriculum studies courses would necessarily include units of study that provide for a critical study of school curriculum materials, syllabi, textbooks, in the light of theoretical frameworks and empirical research.

The pedagogic studies courses would necessarily include units of study that provide for a critical study of content, an examination of learners' thinking and learning and pedagogic processes in the light of theoretical frameworks and empirical research.

Each of the above theory courses is to be complemented with practicum courses.

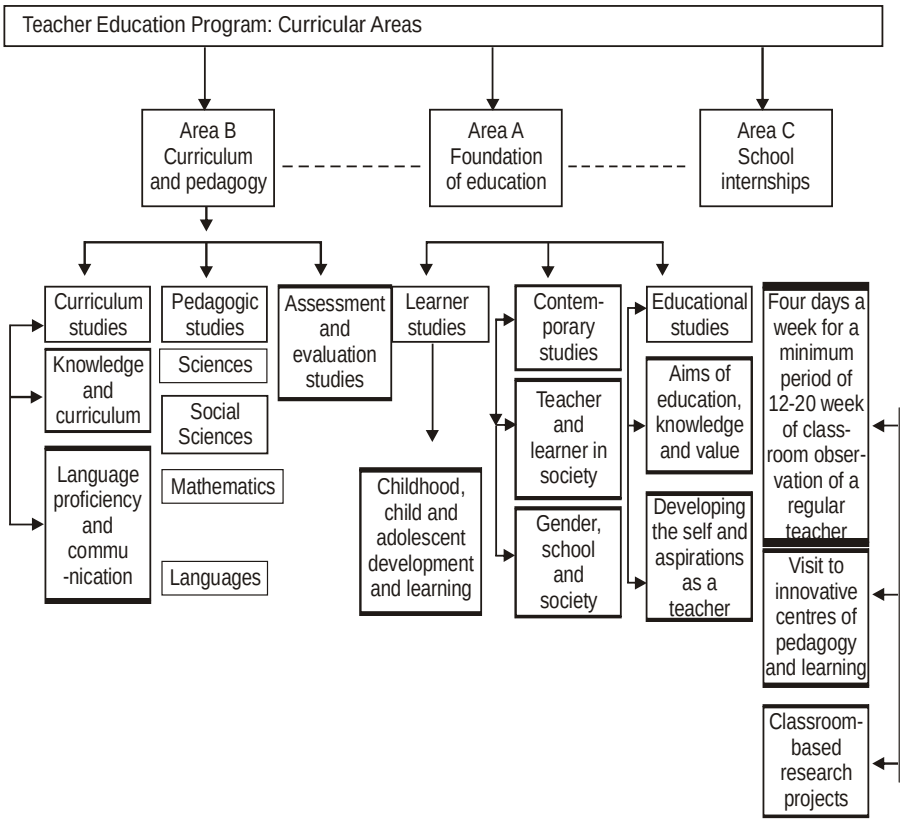

Fig. 2.3 *Teacher Education-Curricular Area*

Sources: NCFTE, 2009

Area C: School Internship

This includes the following:

1. Visits to innovative centers of pedagogy and learning, wherever feasible
2. Classroom-based research projects
3. School internship of four days a week for a minimum period of six-ten weeks, including an initial phase of observing a regular classroom
4. Developing and maintaining resources in the internship schools
5. Developing unit plans and maintaining deep journals

The practice of teaching during school internship would include not more than four-unit plans per subject. Planning of the units would include a critical engagement with content from multiple sources, including the school textbook, organization and presentation of subject matter, formulating questions, specifically to:

(a) Assess knowledge base and understanding of students

(b) Further the process of knowledge construction and meaning-making in the classroom

(c) Assess students' learning to improve pedagogic practice and further enhance learning.

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Table 2.1 *Teacher Education Curricular Areas A Schema*

Curricular Areas	Major Components	Curricular Aspects	Curricular Provision
Area-A: Foundations of Education	**Learner Studies** *Childhood, Child and Adolescent Development* **Contemporary Studies** *Teacher and Learner in Society Gender, School and Society* **Educational Studies** *Aims of Education, Knowledge and Values Developing the Self and Aspirations as a Teacher*	**Drawing upon psychology, sociology, linguistics and education.** *Constructs of childhood, adolescence; socialization; language; cognition, thinking and learning; school and physical health; self, identity; inclusive education* **Drawing upon sociology, history, philosophy, psychology, political science and economics.** *Issues and concerns of contemporary Indian society; human and child rights; classroom as social context Identity development; understanding curriculum and texts from a gender lens; debates about professionalism and feminization of the teaching profession* **Drawing upon educational theory, philosophy, history and sociology.** Basics of teaching-learning; theoretical constructs, educational thinkers; vision of education in India, issues and concerns; school culture and school as a learning organization; peace education Self and identity; interpersonal relations, adult-child gaps; personal and social constructs; schools as sites of contestation and social change.	**2-3 theory courses** with in-built field-based units of study; **Practicum** courses, workshops, seminars, group and individual assignments **1-2 theory courses** with in-built field-based units of study, projects, seminars, group and individual assignments **1 theory course** with inbuilt field-based units of study; group and individual assignments, seminar presentation **1-2 theory courses** with in-built field-based units of study; assignments, group presentations, term papers **1 course** workshop-based with a brief on theory; workshops on issues of gender; identity; social and personal conflict; childhood; relationships

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Area-B: Curriculum and Pedagogy	**Curriculum Studies** *Knowledge and Curriculum* *Language Proficiency and Communication* **Pedagogic Studies** *Language* *Mathematics* *Social Sciences* *Sciences* **Assessment and Evaluation Studies** *Perspective and Practice of Learner Assessment*	**Focus on key concepts of the basic disciplines of language, mathematics, social sciences and sciences; sociology of knowledge and curriculum** Engagement with subject content and school curriculum, textbooks; philosophical and ideological basis of curriculum; design and selection of knowledge; Knowledge as construction; disciplinary knowledge. Language proficiency and communication skills; metalinguistic awareness; skills of speaking, listening, reading and writing in varying contexts; content area literacy **Drawing upon pedagogical theory, constructivist and socio-constructivist perspectives** Nature of discipline and knowledge; understanding school curriculum; critical engagement with principles of teaching; epistemological issues **Draw upon critical reading of psychometric approaches; sociological frames of analysis and constructive approaches** Critical reading of evaluation perspective and practice; place of assessment for learning; qualitative and quantitative measures; hands-on experience clinical interviews, observation formats and interpretation of qualitative data.	**4-6 theory courses** with inbuilt field-based units of study; investigative projects; recording and analysis of observations. **1 course** designed as workshops with hands-on activity in the use of language for communication **4-6 optional theory courses** offering areas of specialization**; practicum courses c**omprising of curriculum and text analysis and creation of alternative learning materials. **1 theory course** with complementary practicum; analysis of question types and assessment formats; group and individual assignments.

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Admission Policies and Procedures for Student Teachers

At the graduate level, qualifying marks should be fifty per cent along with a passing score at an entrance exam (CET). The applicant must have studied at least two school subjects at the graduation level. It would be ideal to add subject mastery at the B.Ed. Level, provided the duration of the B.Ed. course is increased. An integrated B.A. B.Ed., B.Sc., B.Ed., B.Com. B.Ed. of the duration of four years after higher secondary is an appropriate way to do this.

2.3.2 Curriculum of Pre-service Teacher Education at Elementary Level

Curriculum Framework for Quality Teacher Education prepared by a committee of National Council for Teacher Education in 1998 has elaborated upon the curriculum, contents and evaluation systems for all the levels of teacher education. It has a well emancipated curriculum for elementary teacher education.

The documents states that a number of Elementary Teacher Education Institutions (ETEIs) are putting meticulous efforts in preparing teachers for primary and upper primary classes in the country. These institutions are providing basically two types of teacher education programmes, first for primary classes and second, for elementary classes. The primary standard teacher education programmes are diploma courses such as Junior Basic Training (JBT) and Diploma in Education (D.Ed).

The programmes of elementary teacher education are diploma as well as degree courses. These are known as Diploma in Early Teacher Training (DETT) and Bachelor in Elementary Teacher Education (B.El.Ed.). Though the curricula of these programmes is varied but they are entwined around a basic structure provided by National Curriculum Framework for teacher education.

The specific objectives of pre-service elementary teacher education include:

- Development of understanding of the psychological and sociological foundations relevant to the primary stage
- Management of appropriate resources for organizing learning experiences of children
- Acquainting student-teachers with methods and techniques of caring for children with special needs
- Enabling student-teachers to acquire necessary skills so as to develop curiosity, imagination and creativity
- Development of the capacity to understand and analyze the social and emotional problems
- Enabling student-teachers to organize games, sports, physical activities and other co-curricular activities

In order to translate the mentioned objectives in practice, the curriculum of pre-service elementary teacher education is divided into three types of components. These are theory, practice teaching and practical work. These components have the following subjects and constituents:

Theory

The theory component includes Education in Emerging Indian Society, History of Primary Education in India, Psychology of Teaching and Learning, with special reference to children of age groups six-eleven years, Assessment, Evaluation and Remedial teaching, Health and Physical Education, School Management, Education of Children with Special Needs, Guidance and Counseling and Action Research.

Practice teaching

In order to provide student teachers an insight into the practical aspects of the theory of education, they are assigned to prepare a Pedagogical Analysis of Primary School Subjects. Apart from this, they are supposed to practice their skills in teaching through Practice Teaching in Schools. Along with these, the student teachers are also supposed to observe lessons of their peers.

Practical work

The practical skills in teaching include School Experience inclusive of Internship during the school internship. Another important component of practical work in Work Education provides them an experience in the practical aspects of school functioning. The student-teachers of all sorts of teacher education programmes undergo School-Community Interaction through working with some registered Non-Governmental Organizations. The curriculum also involves Action Research Studies and Organization of relevant Educational Activities during the course of programme.

2.3.3 Curriculum of Pre-service Teacher Education at Secondary Level

The curriculum for secondary level pre-service teacher education, more popularly known as Bachelor of Education or B.Ed., is more intensive and comprehensive. At present, the B.Ed. is a one year programme which starts after graduation. The pass-outs of this programme are eligible for teaching till secondary stage.

The specific objectives of B.Ed. programme can be enlisted as:

- Enabling the prospective teachers to understand the nature, purpose and philosophy of secondary education
- Developing understanding of the psychology of pupils
- Acquiring stage specific competencies to pedagogy, curriculum development, its transaction and evaluation
- Enabling student-teachers to make pedagogical analysis of the subjects they are to teach at the secondary stage
- Developing guidance and counseling skills
- Enabling student-teachers to foster creative thinking among students for reconstruction of knowledge

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- Enabling student-teachers to utilize community resources as educational inputs
- Developing communication skills and use the modern information technology
- Acquainting student-teachers with the process of research in education including action research and pedagogical analysis

Like the curriculum of elementary teacher education, the curriculum of secondary level pre-service teacher education also is divided into three components, viz., theoretical subjects, pedagogical practices and practical work. The theoretical subjects are subdivided into three categories of core, elective and pedagogy courses. The pedagogical practices section contains three components, viz., micro-teaching, simulated teaching and practice teaching.

Micro teaching takes place in two steps of teach and re-teach sessions. The number of sessions depends upon the number of skills being practiced in a particular TEI. There is no fixed number of simulated teaching sessions as well. This usually falls between five and ten in various universities.

Under the practice teaching activity student-teachers take fifteen to twenty classes in each of the two pedagogy in practicing schools. The practical work in teacher education is of two types, namely:

(i) **Sessional work:** It provides a record of co-scholastic activities taking place during the whole session.

(ii) **School based projects**: This includes lesson plan book, peer observation booklet, case study file, achievement test record, action research, school record analysis. The number of activities conducted under practical work is not standardized.

2.3.4 Need and Importance of Evaluation in Teacher Education

Evaluation is an act or process that assigns 'value' to a measure. Verbally, evaluation means 'to find the value of or to judge the worth of'. In the process of evaluation, we are to make a judgment as to the suitability, desirability or value of a thing. In education, evaluation refers to the assessment of student's progress towards stated objectives, the efficiency of our teaching as well as the effectiveness of the curriculum.

Apart from classroom examination, evaluation also deals with the evaluation of cognitive, affective and psychomotor domains of the students. As J. M. Bradfield mentions, 'Evaluation is the assignment of symbols to phenomenon in order to characterize the worth or value of the phenomenon usually with reference of some social, cultural and scientific standards.'. In the words of Hanna, evaluation is the process of gathering and interpreting evidences on change in the behaviour of all students as they progress through school.

A comprehensive, objective and transparent system of evaluation in teacher education has been emphasized by a number of committees and commissions in the past. Several plans and strategies have been recommended to reduce the usual

emphasis on external examination and to encourage internal assessment pervading all activities and assignments involved in teacher education curriculum. But unfortunately, the mission of ensuring a justified evaluation scheme in teacher education still remains a challenge to its stakeholders.

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NCTE feels that evaluation is a weak link in many in-service training programmes. In most cases, in-service programmes are evaluated on an *ad hoc* basis. Each in-service teacher education programme should have monitoring as an integral component so that effectiveness of a programme can be properly assessed and appraised. Programme evaluation should assess whether the required inputs were provided to the programme on time, the logistics properly looked after and coordinated, the reading materials provided to participants.

Another aspect of programme evaluation should be to assess the gains of each participant. The other subtle aspect is the impact evaluation to assess the impact of the programme at the grass root level and in the field situation.

Evaluation of Pre-Service Teacher Education at Elementary Level

Evaluation of teacher education at elementary level has for long been a critical question. It is expedient to employ the formative evaluation for obtaining continuous feedback, motivating students and guiding their efforts. There is need to replace external examinations by continuous and comprehensive internal examination system. External system of evaluation needs to be carefully planned; testing tools should be validated and made more reliable. In different situations, evaluation of theoretical component may be based on essay questions, short answer type questions, objective type questions, objective-based questions, oral examinations, and participation in group activities.

Similarly, the evaluation of practice teaching also needs innovations to make it more judicious and objective. Gradual transition to continuous and comprehensive internal evaluation of practice teaching and assigning grades instead of marks would be a professionally sound step. Evaluation of practical work should be divided into more components to make it democratic and student-centered.

Evaluation of Pre-Service Teacher Education at Secondary Level

Evaluation of Teacher Education Programme at secondary level is also, by and large, traditional and intuitive in nature. It can be easily understood through the following chart:

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Table 2.2 *Existing Evaluation Scheme in Teacher Education*

S. No.	Component of Evaluation	Scheme of Evaluation
1.	Theory Papers	25-40% internal marks are assigned. But the mode of evaluation for this component is not standardized. Usually presentations, assignments files, Portfolios and Class-tests are used to evaluate this component. The final examination for theory papers contains 2-3 Essay type questions, 4-5 Short answer questions and several Objective type questions. Evaluation of first two types of question remains subjective and autocratic.
2.	Pedagogical Practices	• **Micro Teaching**: Usually 100 Marks are assigned to this component. There is no specific criterion for the evaluation and marks are distributed quite casually. • **Simulated Teaching**: Generally 5 such plans are executed in Training Colleges. No Specific marks are reserved for ST as it is taken as a part of Practice Teaching • **Practice Teaching**: This activity involves preparation of 15-20 lesson plans and their execution in the practicing schools. No specific marking is assigned to the individual skills or plans. Evaluation is not done on the spot. Comments and suggestions are given on the plans but these are not given worth at the time of final evaluation.
3.	Practical Work	• **Sessional Work**: Art & Craft, Sports, Computer practical, Community Service, Tours & Excursions are the major activities included in this head. Student-teachers are expected to prepare and present the record of all these activities. There is no open policy of evaluation for such files and records. • **School Based Projects**: Lesson Planning, Peer Observation, Case Study, Achievement Test Record, Action Research, School Record Analysis, Psychological Testing are the common records to be maintained by the student-teachers. But they hardly know their evaluation plan and weightage assigned to each of these accounts.

Need and Importance of Innovations in Teacher Education

Innovation generally means doing the same things in a new way. In other words, innovation is application of alternative solutions to solve the traditional problems. In education, innovation means to bring holistic changes of educational system and management, eventually leading to the use of new content, methodology, technology and evaluation strategy. The purpose of innovation in education is to manage the school plant in more efficient, transparent, logical and democratic way.

With changing time and circumstances, we can not rely upon the obsolete content, methodology and ideologies to prepare our students to meet the varied challenges of the future. Therefore, we need to be innovative as well as creative in dealing with students inside and outside the classroom. Time is constantly changing and the only way to keep up with it is to keep growing and evolving.

CHECK YOUR PROGRESS

4. Define curriculum.
5. What did the National Curricular for Teacher Education 2009 recommend for teacher education?
6. What are the three areas of programme structure in teacher education?
7. List the three types of components of pre-service elementary teacher education.
8. Name the three categories into which theoretical subjects are subdivided.

2.4 IMPORTANCE OF IN-SERVICE EDUCATION FOR TEACHERS

Different educationists have emphasized different reasons for the need of INSET. Given below are some of these:

1. **The University Educations Commission Report:** It is considered extraordinary 'that school teachers learn all of whatever subject they teach before reaching its fullness and, to keep alive and fresh, need to become learners from time to time'.
2. **The Secondary Education Commission Report:** It highlighted the importance of in-service education in these words—'However excellent the programme of teacher training may be, it does not, by itself, produce an excellent teacher. It can only anger 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.'
3. **J. P. Leonard:** In his article 'Learning is lifelong', edited by I. J. Patel, M. B. Buch, and M. N. Palsare in the book *Readings in In-service Education*, Leonard emphasized the need for in-service education programme due to the following reasons:
   (i) Education is a lifelong process and no formal training in an institution can fully prepare a person for professional services.
   (ii) In the area of teaching, new investigations are constantly revising our ideas on how and what to teach.
   (iii) All individuals have a tendency to repeat experiences and teachers, especially if they have a tendency to teach as they were taught.
   (iv) In many areas of India, especially in villages and small towns, there is short supply of books, research findings, demonstration of successful experiences and instructional aids, which are needed by a teacher to keep him up-to-date in his profession.

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4. **Jay E. Green:** In his book *School Personnel Administration*, Green describes following multitude of forces, operating now and requiring increased attention to the in-service education of teachers in a school. These are:

   (i) There has been a rapid increase in reinterpretation of knowledge, making obsolete much of what teachers were taught during their training period.

   (ii) There are a large number of poorly and differently educated teachers throughout the country.

   (iii) Many new techniques and tactics of instruction have been developed of which many educators are unaware.

   (iv) New and recently developed instructional media, language labs, teaching machines, computers and TVs require new ways of viewing the teaching and learning in school setting.

   (v) As a result of research work on teacher behaviour in the classroom, new insight into the nature of teaching is being generated.

   (vi) Day-to-day problems encountered by teachers in classroom situations are related to the discipline and motivating the children.

   (vii) Changing social environments, norms, and values also force a teacher to adopt new methods and techniques of teaching and evaluation.

   (viii) A teacher has to play different roles of which each requires different kinds of knowledge, attitudes, and skills.

   (ix) After a period of time, a teacher generally forgets whatever he is taught in his pre-service training.

   (x) The enthusiasm and morale of a teacher generally decreases as the time passes.

2.4.1 Objectives of In-service Education for Teachers

In-service education programme is uncouthly a significant programme, aiming at the continuous development of teachers in a desired direction.

Following are the chief objectives of in-service education for teachers:

- To provide incentive to the teachers to function more efficiently
- To help teachers to know their problems and to solve them by pooling their resources and wisdom
- To help teachers to employ more effective methods of teaching
- To help teachers get acquainted with modern techniques in education
- To broaden the mental outlook of teachers
- To upgrade the teachers' knowledge and understanding of the contents
- To increase the professional efficiency of the teacher

Assumptions to In-service Education for Teachers

The in-service education programme for teachers is based on certain assumptions. Some major assumptions are as follows:

- Education of the educators continues all throughout his professional career in a planned manner.
- In-service education will contribute to the qualitative improvement of education.
- The pre-service training provided to the teacher is not adequate for the rest of his professional career for discharging her/his duties effectively.
- There are many areas of human endeavour in which changes occur, and these changes demand corresponding changes in education and therefore in the educators.
- In-service education is needed in order to bring about changes in education corresponding to changes in other related areas, it is necessary to improve the competence of the teacher in terms of his knowledge, skills, interests, and attitudes as an essential means of improving education.
- Pre-service training helps bring about changes in solving their academic problems and meeting the academic needs the INSET programme helps effectively.
- In-service training is an essential means for improving education.

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2.4.2 Need for In-service Education

Relationship between training and job is helping people to be more successful on the job. If we put people on job having that knowledge and skill which are required for the job, prediction will be successful. Teaching is a profession which needs training. But, the question is of the exact level at which training is required. Teaching at any level is done with a view to impart knowledge. So far as objectives are concerned, they do not vary at various levels. Only content and procedure is changed at different levels.

Competence and professional skills are the very heart of the programme of teacher education. Knowledge of the methods adopted by other teachers combined with other considerations will make the student try out various approaches to his work and during the practical work of the course.

Thus, a practising teacher generally evolves and polishes his own method. He acquires technical skills in practice and not in the lecture room. He should possess such skills and competencies which make his task easy, useful and effective. He should know the techniques and procedures to be adopted in his profession and should be able to effectively perform of his duties.

All the teachers should be trained, but there should not be and in fact cannot be a specific training of teachers. Much wastage in teaching efforts can be saved if the prospective teacher is subjected to teacher-education situations conductive for actualization of potential in him.

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A good deal of waste in teachers' efforts might be avoided by training. But a teacher is not a teaching craftsman. He has to help his students to develop certain personality traits and also to realize desirable values. In past, the training of teachers was born out of the necessity to bring up a 'literate' generation. The teachers were helped to develop a narrow technique and a highly specialized professional approach. Today, the need is to bring out a 'sophisticated' and 'cultured' generation.

Teachers are a section of community sharply segregated from the rest who prepare themselves for their life's work in an institution system which, as it exists today, fails to educate human beings. Our aim must be the education of the right human beings for work in our schools. The only means of strengthening one's intellect is to let the mind be a thoroughfare for all thoughts and not a selected party. From this open mindedness, sympathy, tolerance, intellectual adaptability, and width of interest will develop attributes essential for successful living and dealing with children.

However, all this requires a comprehensive philosophy of life and education—a map by which future teachers may observe themselves in relation to other teachers as well as other human activities. During her/his training course, a teacher must be given time and opportunity to think about education because she/he will be engaged in the all absorbing tasks of the classroom and common life.

Therefore, prospective teachers must be offered opportunities to associate with the best minds and to develop a disciplined intellect as well as the quality of appreciation of culture in its various forms. He will have an emotional life developed to a fine sensitivity but held in a strict control.

The most important task of education for the future is to improve the intellectual and technical competence in teachers. It aims at maintaining or increasing the quality of entrants for the profession to satisfy society's needs. While the first aim is quantitative, the second is qualitative. Some other important reasons have been mentioned below:

1. **Education of the educator:** It continues throughout his professional career in a planned manner.
2. **Educational extension:** It contributes to the qualitative improvement of education.
3. **The pre-service training provided to the teacher:** It is not adequate for the rest of his professional career for discharging his duties efficiently.
4. **Changing areas of human endeavour:** These changes demand corresponding changes in education and the educator. All these new developments, innovations and changes necessitate corresponding changes to be brought abut in educational objectives, curricula, textual content, teaching methods, and instructional materials, without delay, so that education remains dynamic, up-to-date and responsive. Educational extension prepares in-service teachers and other educators for bringing these required changes in education.

5. **Improvement of competence:** In order to bring about changes in education and corresponding in other related areas, it is necessary to improve the competence of the teacher in terms of his knowledge skills, interests, and aptitudes as an essential means of improving education.
6. **Need of change:** In addition to mass scale changes to be brought about in education from time to time, individual teachers and small groups of schools may feel the need to bring about certain changes and aspire to solve certain specific academic problems. Educational extension is capable of helping these individuals or groups in meeting their academic needs and in solving their academic problems.

Present Scenario of In-service Training of Teachers

For in-service training, the country has a huge system of teacher training institutions (TTIs) which provide yearly in-service training to school teachers. The increment in these TTIs is both vertical and horizontal.

At the national level, the National Council of Educational Research and Training (NCERT), along with its five Regional Institutes of Education (RIEs), prepare a mass of training modules and undertake explicit programmes for training of teachers and teacher educators. Institutional support is also given by the National University on Educational Planning and Administration (NUEPA).

At the state level, the State Councils of Educational Research and Training (SCERTs) prepare teaching packages for teacher training and carry out specialized courses for teacher educators and school teachers. The Colleges of Teacher Education (CTEs) and Institutes for Advanced Study in Education (IASEs) provide in-service training to secondary school teachers and teacher educators.

At the district level, in-service training is provided by the District Institutes of Education and Training (DIETs). The Block Resource Centres (BRCs) and Cluster Resource Centers (CRCs) form the lowest rung of institutions in the vertical hierarchy for providing in-service training to school teachers. Under the Sarva Shiksha Abhiyan (SSA), every teacher gets twenty days in a year to train in the subject or in related area through DIETs.

Check Your Progress

9. Name the book in which Jay E. Green describes the need for in-service education of teachers.
10. State any one assumption on which the in-service education programme for teachers is based.
11. What forms the center of the programme of teacher education?

2.5 PRESENT SCENARIO OF IN-SERVICE TRAINING OF TEACHERS

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Most initiatives in 1990s have focused on in-service training of teachers at the elementary stage. The in-service training of teachers in the DPEP, for example, ranged from three to (maximum) twenty days and included a range of topics, with little focus on the teaching-learning process. Information on the education of teacher training in eleven DPEP-I and DPEP-II states is fragmented and imprecise. The impact of these trainings still remains to be understood in spite of a massive infrastructure and investment that went into creating them.

2.5.1 Models of In-service Education for Teachers

Following are some popular models:

- **Face to face institutional model:** In this model, the training institution offers in-service training programme on straight face-to-face training approach. It is most effective when the number of participants is around thirty to forty. Besides lecture-cum-discussion mode, many other strategies are also used, such as project method, case study method, library work, peer learning sessions, buzz sessions, and small group techniques.

  The advantage of this approach is that there is a direct and continued interface between participants and resource persons. The drawback of this approach is that it cannot be used when the institution desires to train a very large number of participants within a short time.

- **Cascade model**: In this model, a large number of persons are trained and training design is built on two or three levels. In the first level, the key resource people are given training. They train resource persons who in turn train teachers. The advantage of this model is that a large number of teachers can be trained within a short duration of time. Nevertheless, this approach has its limits. Knowledge and information passed on at the first tier of key resource persons and then, at the second tier of resource, persons get somewhat diluted resulting into transmission loss of training usefulness.

- **Media based distance education model:** With the advent of satellite technology and computers many training programmes are held using electronic media. Audio-conferencing and tele-conferencing are already being used.

  In these, the electronic media plays the key role while print material plays a supportive role. The benefit of this model is that training objectives can be achieved within limited period. The restraint of this approach is the inadequate availability of the technology itself, and its huge initial investment.

As a result of various recommendations and researches, many models of in-service education for teachers came into existence. These were:

- Orientation courses
- Refresher courses

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- Summer courses
- Sandwich courses
- Educations conferences
- Extension centers
- Exchange of experts
- Short-term courses
- Bureau of publication
- Professional writings
- Indirect training
- Experimenting
- Science clubs
- Correspondence courses
- Evening courses
- Intensive courses
- Workshops
- Seminar and symposium

2.5.2 Agencies for In-service Education

Various agencies are as follows:

1. **Correspondence courses for teachers:** To clear the backlog of untrained teachers, correspondence courses for teachers were first started by the Central Institute of Education in New Delhi. They were also started at the Regional College of Education and Jamia Millia Islamia in New Delhi, M. D. U in Rohtak, K. U. in Kurukshetra, Himachal Pradesh University and many other universities which ran correspondence courses.

   Since the NCTE got the statutory status, all the courses have been stopped to maintain quality. Now, only open universities and other recognized universities are running distance courses in education, B.Ed and M.Ed for in-service teachers.
2. **Seminars:** The duration of the seminar normally varies. These seminars have played an important role in the in-service training of teachers.
3. **Orientation courses:** Sixty-six academic staff colleges have been established so far throughout the country to train the teachers working in the field of higher education.
4. **Short-term courses:** In-service education is being imparted through short-term courses.

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5. **Distance education:** In-service education is being imparted as distance education. IGNOU is offering two year B.Ed course for in-service teachers. Similarly, M.Ed programme has also been started by IGNOU for in-service teachers.
6. **Sandwich courses:** These courses help in-service education of the teachers to a great extent. In such courses, teachers get the exposure of training in a developed country.
7. **Holding workshops:** In-service education is also being given by organizing workshops.

Apart from the agencies mentioned above, some other agencies which are helpful in organizing and implementing this programme are as follows:

- N.C.E.R.T.
- CIET
- NUEPA
- I.A.S.Es
- U.G.C.
- University Departments of Education.
- National University of Educational Planning and Administration
- SCERTs
- DIETs
- NGOs
- Regional Institutes of Education
- Central Board of Secondary Education
- Professional Organization of Teachers

2.5.3 Recommendations of Commissions and Committees for Pre-service Programmes

The recommendations of different commission and committees for pre-service programmes of teacher education are given in Table 2.3.

Table 2.3 *Recommendations for Pre-Service Programmes*

Name of Committee/Board/ Commission	Year	Major recommendations regarding teacher education
Hartog Committee	1929	• Primary teacher training • Lengthening the duration of training courses. • Provision of adequate staff for training institutions.
Central Advisory Board of Education	1943	• Duration of training programmes for teachers. • Two years for pre-primary and junior basic. • Three years for middle school. • Two years for non-graduates in high schools. • One year for graduates in high school.
Sergent Committee	1944	• Need to strengthen practice teaching.
Memorandum on the further action taken by the Provincial Governments on the Post-war Educational Development Report	194-47	• Emergency secondary grade training course of one year to bridge the gap between supply and demand.
First Five Year plan	1950s	• Paradigm shift of teacher education as a process of total development of the individual personality.
Second Conference of All India Training Colleges	1951	• Realization that teacher education had a broader canvas.
Secondary Education Commission Report	1953	• Professionalism in teacher education. • Reorientation of syllabus and evaluation techniques. • Need to integrate subject content and transactional strategies.
University Grants Commission report of the review Committee on Education	1956	• Shift in stress from secondary to primary teacher education. • No untrained teacher to be recruited. • Setting up of correspondence courses for B.Ed. at Regional Colleges of Education (194-5).
Education commission Report	1964 – 66	• For those who have passed the school leaving certificate or higher secondary leaving certificate, the period of training is to be two years. • For graduates, the training to be one academic year.
		• Training colleges to conduct research in pedagogy • Only trained graduates with three years experience to be admitted to M.Ed. courses.
NCERT	1975	• Publication of curriculum framework for school education.
NCERT	1978	• Publication of curriculum framework for teacher education.
Chattopadhyaya Committee	1983 – 85	• The minimum length of training for a secondary teacher should be five years following the completion of Class XII. • Reiterated the need "…to enable general and professional education to be pursued concurrently". • Need for an integrated four-year programme.
National Policy on Education	1986	• Reiterate that teacher education is a continuous process and pre-service and in-service components are inseparable.
The Acharya Ramamurti Committee – Review of the NPE 1986	1990	• Need for an internship model as it is based on the primary value of actual field experience in a realistic situation, on the development of teaching skills by practice over a period of time.
The Yashpal Committee Report Learning without Burden	1993	• The content of the programme should be restructured to ensure its relevance to the changing needs of school education. • The emphasis should be on enabling the trainees to acquire the ability for self-learning and independent thinking.
NCTE	1995	• Approved norms and standards for teacher training institutions at the pre-school, elementary and secondary level.
NCFTE	2009 – 10	• Guidelines for all aspects of teacher education with the focus on preparing humane teachers.

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CHECK YOUR PROGRESS

12. What is the advantage and drawback of the face-to-face institutional method approach?
13. Name any two models of in-service education for teachers that came into existence as a result of various recommendations and researches.

2.6 ORIENTATION AND REFRESHER COURSES

Academic staff colleges are advised and directed by the Academic Advisory Committee. Every year, UGC invites proposals from ASCs for organizing the programmes. These proposals are accepted on the basis of merits and strengths of the university and the number of programmes a university will conduct in the particular financial year.

National University for Educational Planning and Administration (NUEPA, New Delhi) monitored the activities of ASCs in initial years of the scheme. The trainees of the ASC programmes are called participants and trainers are called resource persons. These programmes benefit both as they share their knowledge and learning. The expenses of the participants and the resource persons and expenses for arranging programmes are funded by UGC.

In 2007, the UGC directed all the universities having Academic Staff Colleges to make regular appointments instead of temporary appointments in the teaching and non-teaching staff. Each Academic Staff College is supported by three core staff members, i.e., Professor-Director, Associate Professor and Assistant Professor, and nine non-administrative staff members. In the tenth Five Year Plan, funds were provided to ASCs to setup computer labs for imparting information and communicative skills to the trainees. In the eleventh Plan, the ASCs were asked to provide hostel facilities to the participants and resource persons.

Initially, only staff of government colleges and universities was encouraged to attend the programmes of ASCs, but now, due to rapid expansion of private colleges, the facility to participate in these orientation programs has been extended to private colleges as well. To encourage participation of faculty from private institutions, the government has linked affiliation of universities with faculty participation. Participation in orientation programmes and refresher courses are mandatory for college and university teachers for their career advancement.

2.6.1 Refresher Courses

The duration of refresher courses is of three weeks, and they are composed of 108 working hours for in-service teachers of Universities and Colleges. Recently, they have introduced contract programmes for research scholars and post-doctoral fellows. Through such programmes, a platform is provided to exchange and share their

experiences with their peers and reciprocally learning from each other. This course also helps teachers/research scholars to update their knowledge.

Completion of one orientation course is compulsory for participation in a refresher course. These programmes help in the career improvement of teachers in universities and colleges.

Subject specific and interdisciplinary or multidisciplinary refresher courses are the two types of refresher courses. Issues like social evils, aspects of cultures, human rights, gender issues, developmental issues, economics human values, research methodologies in various disciplines are offered as interdisciplinary refresher courses, apart from subject-specific courses. One member from the teaching staff is designated as coordinator from the concerned department. This member helps Academic Staff College in planning and organizing the course. At the end of the programme, participants are evaluated and graded for their performance.

Centers for Refresher Courses

The University Grants Commission accepts proposals from Centers of advance studies, Centers of excellence, and departments of selected Universities for organizing Refresher Courses for Universities/institutions without Academic Staff Colleges. Such institutions are called Refresher Course Centers, and these helps and promote academic excellence in teachers.

Programmes of Academic Staff Colleges

The Academic Staff Colleges offer three kinds of programmes:

- Orientation programmes of four weeks for all new lecturers
- Refresher courses for three weeks for serving teachers
- Short-term orientation, workshops, and orientation courses for administrators, senior academicians, HODs, principals, and UGC officials

  In the eleventh Five Year Plan, some more programmes have been included for Associate Professors, Professors, Research Scholars and Administrative staff., professional development programmes of six days for non-academic Group B and C, staff, including the UGC staff.

  At least twenty participants are required to start or organize any of the programmes mentioned above. Various methods of advertising have been adopted by ASCs, like issuing notification in local newspapers, University News magazine, schedule display on UGC website, and by post to publicize information about their programmes.

2.6.2 Orientation Programmes

Orientation programmes are of four weeks, constituting 144 working hours for newly appointed Assistant Professors of Universities and Colleges. Orientation programmes emphasize that teachers are agents who can bring about socio-economic changes and national development and also underline the need to make them skill-oriented. Orientation courses help young professors to become self-reliant by creating awareness of the social, intellectual and moral environment.

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Objectives

The objective of this programme is to motivate and spread awareness among teachers about the systematic techniques and methodologies. It also provides opportunities for professional and career development, so that teachers can fulfill their role and responsibilities effectively. The ASCs are given flexibility to plan and execute the programme to achieve the following objectives:

- Understand the significance of education in general and higher education in the global and Indian context
- Understand the relationship between education and economic and socio-cultural development with particular reference to Indian politics
- Acquire and improve basic skills of teaching at the College/University level
- Make use of opportunities for development of personality, initiative and creativity

Components

To achieve the above given objectives, the curriculum for the orientation course may have the following four components:

- **Component A:** Societal awareness, awareness about environment, awareness about development and education
- õ **Component B:** Educational philosophy, history of Indian Education and pedagogy
- õ **Component C:** Resource awareness and knowledge generation
- **Component D:** Educational management and personality development

Details of these are provided below:

Component A: This component helps the teacher in realizing the broad context of education and their role in society. Some illustrative topics are secularism, egalitarian society, national integration, multilingualism, multiple cultures, gender and women empowerment, equality, status of women and children, casteism, environmental pollution and biodiversity unemployment, industrialization, urbanization, rural development, sustainable development, public interest movements.

Component B: The aim of this component is to develop some basic skills and sensitivities that a teacher needs for effective classroom teaching-learning. These topics may be as given below:

(i) **Educational philosophy:** These topics may be on globalization of education, value-based education, comparative educational systems, role of society and institutions.

(ii) **Indian education system:** These topics can be on planning, university autonomy, programs and policies, organizational structure.

(iii) **Resource mobilization:** This includes economics of education and human resource development.

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(iv) **Quality:** This includes quality assurance in higher education, indicators of quality assurance, assessment and accreditation.

(v) **The human aspect:** This includes human growth and development, aptitudes, attitude, intelligence, learning theories learner and the learning process, understanding the developmental process of adolescent learner, need.

(vi) **Methods and materials of teaching:** This includes prescribed texts, effective classroom teaching techniques, and assignments.

(vii) **Technology in teaching:** This focuses on audio, video, educational films, computers, concept of teaching, levels of teaching and phases of teaching.

(viii) **Curriculum design:** This includes needs-based courses, remedial courses, and curriculum development.

(ix) **Evaluation and feedback:** Under this, topics can be setting question papers, measurement and examination, and reforms.

(x) **Alternate methods of learning:** This includes topics such as self-learning and informal learning, distance and open learning.

Component C: This component helps the teacher in becoming self-sufficient by continuously increasing techniques, processes, methods and sources of knowledge.

- Information technology
- Documentation centers
- Libraries
- Institutions such as museums, laboratories, specialized institution
- Research
- Industry-university linkages

Component D: This component aims in familiarizing teachers with the organization and management of the college and are made aware of various ways by which they can develop their own personalities. Some of these illustrative topics are:

- Verbal and non-verbal communication skills
- Thinking skills and scientific temper
- Leadership, team building and work culture
- Administrative skills, such as decision-making, service rules, human relations and interpersonal effectiveness
- Educational management, which includes institutional management, management o committees, examinations, hobby clubs, sports and co-curricular activities
- Student guidance and counseling
- Mental health, focusing on attitudes and values
- Career planning and time management
- Teacher efficacy, focusing on qualities of an effective teacher, code of conduct, accountability and empowerment

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Depending upon the academic background requirements of the teacher, the ASC may select the number of topics and methodologies of teaching. Weightage to each component is kept flexible, and the ASC may decide the modalities and time allocation of the input based on the needs of the respective groups. The above mentioned components are a small list of topics suggested by the UGC.

However, ASCs may choose topics, modes of instructions and methods of delivery of their own choice to bring out the best results. At times, they are designed with inputs from the trainees as well. Colleges have devised a method by which they can gauge the motivational levels of the participants at the time of enrollment that subsequently sets the tone and direction of the course.

Professionals from the fields of administration, journalism, academic disciplines, industry, social services, and literature are called for the benefit of young teachers and trainees. Various practical methods are employed in the development of teaching and research skills. Basic features in most of the orientation programs are micro-teaching, workshop orientation courses, language labs, curriculum development, computer training, field study, e-content development, extension work, and cultural activities.

Assessment

Variety of activities in teaching techniques and methodology makes the trainees participate in the courses actively. The trainees evaluate their trainers and, in turn, are evaluated by their trainers, coordinators and peers on the quality of their assignment, presentations and reports. Evaluation is also done on the level of participation in academic and organizational tasks, discipline, and promptness.

To ensure serious involvement of the trainees, certificates are awarded with grades. In case the participants get less than fifty per cent marks, they are required to attend the programme again after a gap of one year on their own expenses. This certificate is required for career improvement of the participants.

At the end-of-the-course, participants are supposed to give their feedback, which gives ASCs necessary information in terms of the impact and effectiveness of the course. This kind of self-evaluation and monitoring helps to improve the quality of these programs.

Short-term Orientation/Workshop Orientation Courses

Each ASC annually organizes one or two meetings for a duration of two days for principals, Heads, Deans, officials of colleges, educational/administrative officers, including UGC officials with an objective to:

- Orient them with the importance and philosophy orientation programs and refresher courses and accordingly persuade them understand the activities of ASCs and depute teachers
- Enable them to understand their new roles as supervisors
- Facilitate reforms in higher education through appropriate modification of management systems at various levels

- Create awareness about quality issues in higher education system, new government, reforms in higher education, trends in global education, advances in information technology, e-learning, e-content development, human rights issues, and value-based education

CHECK YOUR PROGRESS

14. How does the ASC define participants and resource persons?
15. What are the two types of refresher courses?

2.7 SUMMARY

- õ The history of teacher education in India is as old as its education system.
- The East India Company and British government took care to modernize and expend the system of teacher education in India. After independence, the efforts to upgrade and modernize teacher education continued.
- Since its inception, NCTE has been quite active in determining their objectives, content, methodology, technology and evaluation scheme to sustain the relevance and importance of teacher education programmes.
- The National Council for Teacher Education has defined teacher education as a programme of education, research and training of persons to teach from pre-primary to higher education level.
- Teaching skills would include providing training and practice in the different techniques, developing approaches and strategies that would help teachers plan and impart instruction, provide appropriate reinforcement and conduct effective assessment.
- Pedagogical theory includes the philosophical, sociological and psychological considerations that would enable the teachers to have a sound basis for practicing the teaching skills in the classroom.
- Professional skills include the techniques, strategies and approaches that would help teachers to grow in the profession and also work towards the growth of the profession.
- Teacher education also reaches special education and physical education. Consequently, where there are teachers, there would be teacher education.
- Elementary teacher education, including primary teacher education, is designed to prepare teachers from classes I-VII.
- Secondary teacher education programme is organized by Teacher Education Colleges affiliated to different universities and recognized by NCTE.
- In-service education may be defined as continuing education of teachers and other educators which commences after initial professional education is over

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and leads to the improvement of professional competence of educators all throughout their careers.

- The Indian pre-service teacher education system is chiefly divided into two categories, viz., Elementary Level Teacher Education programmes and Secondary Level Teacher Education programmes.
- Curriculum is the totality of learning experiences provided to students so that they can attain knowledge, experience and skills through a variety of learning activities in classroom and schools.
- The process of curriculum planning and development has undergone tremendous changes due to philosophical, technological and pedagogical changes in schools.
- Curriculum Framework for Quality Teacher Education prepared by a committee of National Council for Teacher Education in 1998 has elaborated upon the curriculum, contents and evaluation systems for all the levels of teacher education.
- The curriculum for secondary level pre-service teacher education, more popularly known as Bachelor of Education or B.Ed., is more intensive and comprehensive.
- Like the curriculum of elementary teacher education, the curriculum of secondary level pre-service teacher education also is divided into three components, viz., theoretical subjects, pedagogical practices and practical work.
- Evaluation is an act or process that assigns 'value' to a measure. Verbally, evaluation means 'to find the value of or to judge the worth of'.
- Apart from classroom examination, evaluation also deals with the evaluation of cognitive, affective and psychomotor domains of the students.
- For in-service training, the country has a huge system of teacher training institutions (TTIs) which provide yearly in-service training to school teachers.
- At the national level, the National Council of Educational Research and Training (NCERT), along with its five Regional Institutes of Education (RIEs), prepare a mass of training modules and undertake explicit programmes for training of teachers and teacher educators.
- At the state level, the State Councils of Educational Research and Training (SCERTs) prepare teaching packages for teacher training and carry out specialized courses for teacher educators and school teachers.
- At the district level, in-service training is provided by the District Institutes of Education and Training (DIETs).
- In 2007, the UGC directed all the universities having Academic Staff Colleges to make regular appointments instead of temporary appointments in the teaching and non-teaching staff.
- To encourage participation of faculty from private institutions, the government has linked affiliation of universities with faculty participation.

- Each ASC annually organizes one or two meetings for a duration of two days for principals, Heads, Deans, officials of colleges, educational/administrative officers, including UGC officials.

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2.8 KEY TERMS

- **Proficiency:** It means a high degree of competence or skill/expertise.
- õ **Holistic:** It is characterized by comprehension of the parts of something as intimately interconnected and explicable only by reference to the whole.
- õ **Pedagogic:** It means or is related to teaching.
- õ **Modalities:** It means a particular mode in which something exists or is experienced or expressed.
- õ **Empirical:** It is based on, concerned with, or verifiable by observation or experience rather than theory or pure logic.
- õ **Feasible:** It refers to something that is possible to do easily or conveniently.
- õ **Obsolete:** It refers to something no longer produced or used; out of date.

2.9 ANSWERS TO 'CHECK YOUR PROGRESS'

1. The National Council for Teacher Education has defined teacher education as a programme of education, research and training of persons to teach from pre-primary to higher education level.
2. Pedagogical theory includes the philosophical, sociological and psychological considerations that would enable the teachers to have a sound basis for practicing the teaching skills in the classroom.
3. Pre-service teacher education stands for the programme which is designed to prepare teachers before going in for service.
4. Curriculum is the sum total of all the activities in an academic programme.
5. The National Curricular for Teacher Education 2009 recommend that teacher education courses should be reorganized at all levels.
6. The three areas of programme structure in teacher education are given below:
    - Area A—Foundation of Education
    - Area B—Curriculum and Pedagogy
    - Area C—School Internship
7. The three types of components of pre-service elementary teacher education are as follows:
    - Theory
    - Practice Teaching
    - Practical work

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8. Three categories into which theoretical subjects are subdivided are core, elective, and pedagogical courses.
9. It is in his book *School Personnel Administration* that Green describes the multitude of forces, operating now and requiring increased attention to the in-service education of teachers in a school.
10. One assumption of the in-servicing teaching programme is that education of the educators continues all throughout his professional career in a planned manner.
11. Competence and professional skills are the very heart of the programme of teacher education.
12. The advantage of this approach is that there is a direct and continued interface between participants and resource persons. The drawback of this approach is that it cannot be used when the institution desires to train a very large number of participants within a short time.
13. As a result of various recommendations and researches, many models of in-service education for teachers came into existence. These were:
    - Orientation courses
    - Educations conferences
14. The trainees of the ASC programmes are called participants and trainers are called resource persons.
15. Subject specific and interdisciplinary or multidisciplinary refresher courses are the two types of refresher courses.

2.10 QUESTIONS AND EXERCISES

Short-Answer Questions

1. What is meant by teacher training? When and how was the term invented?
2. What are teaching skills? What is the difference between teaching skills and professional skills?
3. Why is level and stage-specific teacher training considered necessary?
4. What is in-service education? Why is there a need for up-to-date provisions in subject fields for teachers?
5. Write a short note on Henderson's definition of in-service training.
6. Why is curriculum planning and development essential for pedagogical changes in the school system?
7. What are the various objectives of pre-service elementary teacher education?
8. What does the Secondary Education Commission Report state with regard to the need of INSET?

9. Define Refresher Course Centers. How do they help and promote academic excellence in teachers?
10. How do Orientation courses help make professors self-reliant?

Long-Answer Questions

1. Name and explain the three levels of school education present in teacher education programmes.
2. Name and explain the various objectives of teacher education.
3. What did the NCFTE 2009 mention with regard to pre-service teacher education?
4. Explain the Cascade model and the Media Based Distance Education model of in-service education for teachers.
5. Name and explain the various agencies for in-service education.
6. Explain the various objectives of orientation programmes.
7. Name and explain the four components that need to be present in the curriculum for the orientation course.

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2.11 FURTHER READING

Dash, M. 2000. *Education in India: Problems and Perspectives*. New Delhi: Atlantic Publishers.

Thomas, Elwyn. 2002. *Teacher Education: Dilemmas and Prospects*. New York: Routledge.

Srivastava, G. N. P. 2004. *Perspectives in Teacher Education*. New Delhi: Concept Publishing Company.

Srivastave, R. C. 1997. *Teacher Education In India: Issues and Perspectives*. New Delhi: Regency Publications.

UNIT 3 PROBLEMS OF TEACHER EDUCATION

Structure

3.0 INTRODUCTION

Teachers of our time are no longer mere disseminators of knowledge. It has become the teacher's main task to help young people in coping with a welter of information and in putting it into some order. They must know how to appraise and distinguish that which is useful to the development of an individual and society, telling not only what is relevant at a given moment, but also what is likely to be relevant in the future. This has not made the teacher's task any easier. Added to his former duties, she/he now finds the responsibilities of a personal guide and almost a parent, teaching young people how to make decisions in adjusting to a civilization in a state of constant, rapid flux.

There would seem to be a growing dissatisfaction, in most countries of the world, with the present arrangements for the education and training of teachers. The complaint that the quantity of entrants to the teaching profession is insufficient to meet the increasing demand for education at all levels is, of course, familiar enough to those responsible for teacher education and is a criticism that they tend to regard as both valid and acceptable—it carries with it the comforting implication that their services are appreciated and will continue to be required for a long time to come. Criticisms leveled against the quality of the new entrants, however, are far

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less palatable, such strictures cast doubts on the adequacy of the procedures that are employed to educate intending teachers and consequently on the professional competence of those who design and implement them.

During the past decade, the volume and intensity of this latter kind of criticism have reached uncomfortable proportions. Not only has it occupied considerable space in the educational literature of many countries, but it has often been afforded wider publicity by the mass media, and the relatively muted contributions of the academics are now scarcely audible above the clamour created by politicians, journalists, retired admirals, and the like. This unit discusses the problems of teacher education and provides suggestions for their solutions. It also evaluates changes in teacher education programme and the status of implementation.

3.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Assess the problems and solutions of teacher education
- Analyse the problem of balance and integration in teacher education
- Evaluate the changes in teacher education programme and the status of implementation
- Explain the role of a teacher as a technician and a professional

3.2 PROBLEMS AND SOLUTIONS TO TEACHER EDUCATION

The optimal forms of teacher education cannot be found without the help of many interrelated fields of knowledge—psychology, sociology, technology, as well as such scientific methods as mathematical analysis and statistics all play an important part in such a design.

The conspicuous lack of useful research on the education of teachers seems to suggest that all is not well in this respect. This means that research should itself form an essential part in the activities of teacher education, to serve the two-fold purpose of introduction to an ever more important technique of discovery and of ensuring an efficient 'self-control of teacher education in the manner of constant feedback'.

Empirical research may not be the only solution, but, despite the disadvantages of requiring much prior planning and setting-up of test situations, it may provide the most reliable returns for many key questions about the entire infrastructure of education. Other problems such as curricular modifications will call for a more prospective approach, yet they too must be considered with the teacher's effective role in mind.

3.2.1 Organization of Teacher Education

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In this section, we discuss teacher education in its institutional setting. We are concerned here with the broad strategies that are employed in bringing together teacher educators and students and ordering their relationships and activities.

Institutions of Teacher Education

The institutions responsible for the education of teachers are extremely varied in character. Between countries and within countries, they are found to range from those which, at one end of the scale, may be closely identified with secondary schools and those, at the other, which are housed within, or are manifestly equivalent in standard to Universities.

These differences are the result of the history of teacher education as an organized enterprise. Its origin was accompanied and stimulated by the rapid transition from a conception of education as being the prerogative of a favoured minority in the community to that of a publicly provided system extending its benefits to all its members. To meet the demands of universal education, teachers had to be provided in large numbers and relatively quickly.

Furthermore, its initial aims were relatively unambitious, being restricted at the outset to affording a modest degree of literacy to the children of the masses. In these circumstances, it was inevitable that teacher education, in the early stages of its development, should be associated closely with the schools, rather than with institutes of higher education. The more promising pupils were persuaded to stay behind, as it were, to serve a brief apprenticeship and then to begin to practice as teachers.

Even when such recruits were removed to institutes, established and designed to afford some formal preparation, little more than minor advancement in their personal education and the acquisition of a few basic skills was expected or required of them. Teacher education institutions, in general, still suffer to some degree from the stigma attached to their humble origins, and, in many instances, their status in still insecure. The universities, closely associated historically with the supervision and provision of those forms of higher education that are related to entry to the major professions, have tended to be uncertain about their obligations regarding the education of teachers.

Their contribution to the supply of adequately qualified people to teach in academic secondary schools has been recognised if not satisfactorily defined. Their relationship to the total system of preparing teachers for every kind of school and educational establishment remains obscure. In many countries, there is now an uneasy confrontation between the universities and those responsible for teacher education which involves uncertainty, on both sides, concerning the kind and degree of partnership that they should endeavour to develop.

In considering the character of teacher education, institutions we would identify as the problem most deserving of close study and research at present that of determining the extent to which they should be associated with the universities. This

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problem has been the subject of a good deal of critical discussion but little research has been undertaken of a kind that would help us to resolve the issue. We need to be able to examine or clearly to envisage the consequences of different degrees of participation by the universities in the process of teacher education, ranging from, at one extreme the complete control and direction of the whole enterprise to, at the other end, their total isolation from its activities and concerns.

In many countries, the status of teacher education is regarded as dependent on the extent to which it becomes accepted by and associated with the universities. This has persuaded some teacher education institutes to model their practices on those favoured by the universities, basing their policy, in this regard, on the assumption that imitation is the sincerest form of flattery and that, by flattery, they might effect the marriage that will earn them a higher prestige.

Others, prompted by a variety of motives, favour a policy aimed at preserving the distinctive character of their institutions and at ensuring that their direction and conduct remain independent of the Universities.

Changing the character of teacher education institutions in the direction we are envisaging could also have significant effects on the content of the courses that they offered. There have been several discussions on the issues involved in effecting an appropriate balance between academic education on the one hand and the pedagogic and professional elements on the other.

The point to be noted here is that the degree of university control of or association with teacher education is likely to affect this balance. What needs to be determined, as far as this is possible, is the extent to which this balance would be affected and the consequences, in terms of the outcome of teacher preparation.

That there is a manifest need for overall planning with regard to the numbers and specialist qualifications of the teachers required to serve a modern educational system cannot be denied. It is feasible, moreover, to suggest that this planning can best be undertaken or supervised by central or regional governments who are responsible for managing the educational system and for employing teachers. It is less obvious, however, that it is in the best interests of all concerned that they should control the content of teacher education. There would seem to be a possible conflict of interests here.

If teacher education is left to the direction of governmental agencies on behalf of the consumers, so to speak, this direction might well extend beyond the determination of the numbers and categories of the teachers to be produced, and might result in an erosion of the area for which teacher educators now exercise professional responsibility. It has often been argued that the universities are the only educational institutions with sufficient status and influence to be able successfully to challenge threats to their academic freedom and that teacher educators would be well advised therefore to seek their patronage.

3.2.2 Curriculum and Content

The situation confronting the prospective teacher is therefore very different from that of his predecessors. There are few students who can be regarded as equipped

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at the outset of the course to deal with the full array of knowledge and skill that they may be required to deal with in the modern primary school. It is necessary nowadays, therefore, for academic courses to be provided for them that are not only related to their personal development but to the content or subject-matter that they will subsequently be called upon to teach.

The question now arises, therefore, of whether it is feasible to conceive of teachers in primary schools as general practitioners. Is it possible for all teachers to teach all the subjects in the current school curriculum at all, let alone with equal effectiveness? There is some research evidence (Goldberg and Passow, 1966) to show that even where a fairly conventional and restricted range of subjects is concerned, it is found that many teachers are significantly more effective in dealing with one subject rather than another. There are likely to be even more pronounced discrepancies in this regard if the present trend for broadening the primary school curriculum continues.

We have identified as the major problem in primary education that calls for study and research, the extent to which it is necessary, possible, and desirable for there to be a degree of specialization in the academic courses provided for intending primary school teachers.

It is suggested that those who design teacher education courses, in consultation with Heads and teachers in primary schools, and with the students themselves, should identify various groups of academic subjects which, in number and composition, might satisfy both the needs of the students and those of the schools. The courses so devised should be regarded as experimental in character and their outcome examined with regard both to their immediate effects on the progress and morale of the students involved and also, in the long term, to their effects on the life and work of the primary schools to which these students eventually proceed.

Another, related problem to which we should like to draw attention concerns the possibility of providing for some students a variety of academic courses as distinct from requiring them to select a relatively specialized field of study. The question here is the extent to which some students would like to become general practitioners rather than specialists and the extent to which secondary schools would welcome the former as recruits to their staffs. Arguments have been put forward on behalf of this proposal on a number of levels.

On purely practical grounds, the Heads of secondary schools look for, and frequently do not find, teachers able and willing to teach several subjects to the more junior pupils. The problems of forming the time-table and following it become complicated if the available teachers cannot be asked to step outside their specialist fields. This provision is also sought on educational grounds. For the younger pupils in secondary schools, it is maintained, there is considerable advantage in the arrangement whereby they may be attached to someone who will be their teacher for a range of subjects and thus be in regular and close contact with them for considerable parts of the day.

This serves to establish the kind of relationship which cannot develop so easily when the pupils have no more than fleeting encounters with a wide array of

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subject specialists. It is also possible that an arrangement of the kind we are considering, if it became a systematic part of teacher preparation, could have a pervasive influence on the intellectual development of secondary school pupils.

From many countries are encountered complaints that this development is often imbalanced to an undesirable extent. The tendency for secondary school pupils to develop strong interests in and marked preferences for particular subjects and areas of knowledge is clearly not to be discouraged. If, however, this is accompanied by ignorance of and, worse, a lack of respect for other kinds of knowledge and ways of thought, the result can be unfortunate for the individuals concerned and, ultimately, for the society to which they belong.

It is reasonable to suppose that the tendency for secondary school pupils to manifest markedly uneven intellectual development is associated with that of populating school staffs with relatively narrow specialists. Ideally, perhaps a teacher should have some familiarity with and preferably some grounding in all the major fields of knowledge and the modes of inquiry appropriate to each. Although this may be unattainable, we suggest that the possibilities of moving n this direction should be explored.

Various patterns of academic education might be experimentally introduced and their viability and effectiveness assessed. Two possible patterns, although others could no doubt be devised, suggest themselves as candidates for investigation. One might consist of a course comprising two or more subjects (the potential loss of depth for the sake of breadth would no doubt have to be considered as a limiting factor) drawn from contrasting disciplinary groups.

A teacher who could claim affiliations with each of two factions, the sciences and the humanities, for example, who were eyeing each other suspiciously could no doubt serve as an effective mediator. Another approach might be to conserve the specialist choices that normally operate but to offer complementary courses designed to familiarize students with the modes of thought that distinguish the fields of knowledge other than his own.

Nowadays, the teacher educator does not find himself in this comfortable and respected position. Her/his responsibilities can no longer be defined in terms of handing on traditional knowledge concerning school curricula and methods of teaching. She/he is in the position rather of trying to help his students to predict the shape of things to come in these respects. It is because she/he has been temporarily assigned the role of a prophet rather than that of an acknowledged expert in pedagogic matters that many, as we have seen, have argued that her/his services are no longer required. It is particularly towards the pedagogic courses in teacher education institutions that criticism is currently directed from outside; and it is concerning the content of these courses that teacher educators themselves feel especially uncertain.

Those who are responsible for this aspect of teacher training have become disconcerted not only by the growing tendency for practicing teachers and administrators to disparage their contribution on the grounds that it has lost its relevance, but also by the more oblique but no less insistent criticisms that are leveled against them by some of their own colleagues.

Now that the gates of teacher education institutions have been opened to philosophers and social scientists, few assumptions that cannot be defended by rational argument or are unsupported by empirical evidence remain unquestioned. A man's experience and demonstrable practical competence were once regarded as providing sufficient justification for the statements he made and the advice he offered.

This is a view that is manifestly unacceptable to those whose stock-in-trade is conceptual analysis or psychological research, and, moreover, likely to be unacceptable to the students who have been introduced to these modes of inquiry.

3.2.3 Problem of Balance and Integration

That teacher education is fragmented into a number of relatively isolated parts and that its effectiveness could be improved by bringing them into a closer relationship are topics that have been frequently discussed and occasionally investigated. Initially, professional training was confined to the provision of pedagogic courses. The subjects usually included under basic education were not introduced into the programme simultaneously; they arrived at intervals and each has had to compete, first with the established part of the course, and later with other proposed additions to it for a place in the total pattern.

What is significant is that the introduction of these new subjects into the timetable was not at once accompanied by the recruitment of members of staff qualified to teach them. The potential contribution to teacher education of, for example, philosophy and psychology were recognized long before there were philosophers and psychologists available to represent these disciplines within the institutions concerned. This led to the development of a paradoxical situation—that of professional training administered largely by amateurs. This served to widen the gulf between those responsible for the academic education of intending teachers and those who undertake their subsequent professional preparation.

The former could be indulgent towards colleagues whom they suspected of nothing worse than a slight inferiority in academic level; the growing suspicion that they were guilty of charlatanry destroyed the prospects of effective communication and cooperation. The subsequent arrival on the scene of qualified philosophers and social scientists has served further to complicate the issue. There are several distinct groups of individuals sharing responsibility for teacher education, with different backgrounds, qualifications, and views concerning the needs of intending teachers and the priorities that should be established among them.

The chief obstacle perhaps to achieving an effective integration of their efforts is the fact that each has tended to develop a defensive posture with regard to the relative status and relevance of his distinctive contribution. Although these divisions are seen to be most pronounced within the consecutive arrangements for the preparation of secondary school teachers, they are reflected nevertheless in those institutions concerned with intending primary school teachers which, in the main, adopt a concurrent pattern of training.

Although it would seem more probable that a balanced and integrated programme could be achieved in these circumstances, there has not been a good

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deal of conspicuous progress in this direction. Such institutions are inclined to manifest a pecking order among the groups responsible for the different kinds of preparation that are offered and, consequently, the courses that they provide fail to achieve a harmonious pattern. We are not optimistic concerning some of the piecemeal reforms that are being undertaken or proposed as solutions to this problem.

Attempts to plan the sequence in which topics are presented in the various courses in the hope that their coincidence and convergence will achieve the desired degree of integration are, by themselves, unlikely to prove adequate. Similarly, the assumption that the students themselves, given the present variety of offerings, may be relied upon to effect the necessary selection and integration for themselves is tantamount to avoiding the issue.

3.2.4 Methods of Teacher Education

Although it is necessary in organizing conferences to make arbitrary divisions within the total area of subject-matter to be discussed, it soon becomes apparent that in some instances, the proposed boundaries are unduly restrictive. This is certainly the case in attempting to distinguish between, on the one hand, the content of teacher education courses and, on the other, the methods of teaching employed in communicating this content to students. These are two aspects of what is virtually a single organic entity and in discussing them, therefore, a certain amount of cross-reference is inevitable.

Techniques of Teaching

The choice of teaching methods in an institution for the education of intending teachers is a much more complex issue than it is in other educational establishments. In the latter, the only significant consideration is the extent to which the methods adopted provide an adequate means of transmitting knowledge.

In devising an educational programme for intending teachers, however, there is a second, and perhaps equally important purpose to be served. Not only must the chosen methods prove to be serviceable in equipping the students with a prescribed body of knowledge, but they must also be regarded as possible exemplars or models that the students may be disposed to imitate subsequently when they become teachers themselves.

Unlike the majority of other students, intending teachers, when they attend a class or lecture, are just as much interested in the form of teaching displayed as in its substance. Being committed to the profession of teaching, they are naturally disposed to pay attention to any demonstration of the art that they are preparing themselves to practice. Thus, teacher educators must expect to find their own methods of instruction submitted to close scrutiny and may find them being adopted by their students.

In relying on discussion as a teaching device, on the other hand, there is a danger of allowing erroneous conclusions to be formed and irrelevant associations to be made. Furthermore, there is a risk that some of this faulty learning may not only pass undetected but may be inadvertently reinforced.

For other purposes, however, discussion group methods have been found to be advantageous. They may enable students to develop concepts and to understand principles more effectively than it is possible for them to do whilst they listening to an orderly exposition. In the latter circumstances, there is little or no opportunity to pause in order to dwell on some point that may be imperfectly understood.

In discussion, students have an opportunity to test for themselves the extent to which, for example, they have established a particular concept, by bringing forward a number of exemplars and having these confirmed as being apposite or otherwise. In this way, their knowledge can become both more firmly grounded and also more personally satisfying in that, in a sense, they have acquired it by their own efforts. As a means of serving the second purpose—that of acquainting students with the existence of a wide range of teaching methods—these innovations may well be justifiable.

A case can be made out for reflecting within a teacher education institution the conditions that obtain within the schools and under which the students will eventually pursue their professional activities. If they are to be surrounded with gadgets and aids and involved in, for example, team teaching arrangements, it is at least arguable that they should be provided with some experience of living and learning in these circumstances during their preparatory course. Another field of research that has recently been developed in relation to teaching methods is concerned with the kind and extent of student participation in this process [(Davis and Bowers (1964), Forst and Mathews (1964), Hanko (1964) Stones (1969)].

Organizing Practical Experiences

It is generally recognized that an important part of any programme of teacher education is the provision of opportunities for the students to undergo practical experience of teaching. Indeed, many of the students themselves regard this as the single most important element in their training.

On the other hand, there is evidence of considerable and widespread dissatisfaction with the arrangement commonly made for this purpose. Although there is considerable diversity, both between and within countries, in the ways in which practical experiences are organized, there are certain problems which would appear to be so general and persistent as to call for study and investigation.

One of these, until relatively recently, appeared to be inherent in the situation and virtually insoluble. It is normally considered desirable that a student should have an opportunity to observe experienced teachers at work and also to have his own initial efforts supervised and appraised by someone qualified to judge their effectiveness. There are two major difficulties that are encountered in trying to satisfy these requirements.

The first is that the intrusion into a normal teaching situation of a third party—the student himself appearing as observer in the classroom, or his supervisor being present during one of his own practice teaching periods—introduces a degree of artificiality. The normal situation, for which the student is being prepared ceases to be normal as soon as these necessary arrangements for observation are made.

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The second of these difficulties stems from the ephemeral nature of any specific encounter between a teacher and his pupils. When a student and his supervisor come to discuss a particular lesson, they find themselves not only dealing with a situation that is past and cannot be recalled, but one which has been perceived from two vantage points. When a tutor and student discuss a piece of academic work that the latter has submitted for assessment, they are able to examine and review it at their leisure and they are both able to focus their attention on the same piece of evidence.

This is not the case when a student's teaching experience is being considered. Not only do they have to rely on their recollections of what took place, but their initial perceptions are inevitably markedly different. Whilst the supervisor was able to observe the student's behaviour, the latter was inevitably concentrating on the task in hand and the reactions of his pupils.

For evidence concerning her/his demeanour, tone of voice and mannerisms, the student has to rely on his supervisor's reports. She/he has no means of verifying their accuracy for himself. A problem of a somewhat more fundamental nature concerns the kind of supervision that should be envisaged for a student during the course of his practical experiences and the ways in which this supervision may be best organized. It is commonly reported by those who observe students during the initial stages of their practice teaching that their behaviour is compounded of three distinct elements.

The first of these would appear to be associated with the student's recollections of his own school days. She/he is inclined, consciously or otherwise, to model her/his behaviour on one or more of her/his former teachers. It is not surprising that this should be so. When a person commits himself to teaching as a profession—and many intending teachers make their choice of career at a relatively early age—it is inevitable that he should observe or try to remember the ways in which his own teachers behaved in the classroom.

These are the prime models for the beginner and one regularly finds students adopting tones of voice, mannerisms and modes of approach that are manifestly imitations of those exhibited by the men and women who once taught him.

A second powerful influence that soon becomes apparent is that of the teachers with whom she/he comes into contact in the schools where his practical experiences are gained. Some of them may be designated as her/his mentors, in that she/he is expected to observe their methods of teaching and follow their advice. But even those with whom she/he has more informal contacts make an impression on the student who is searching for a professional image and trying to identify a role that is consonant with his capacities.

The third and often the least apparent influence, is attributable to the instruction and advice she/he has received in her/his course of teacher education. Some cynical observers suggest that this influence virtually ceases to operate once the student becomes a qualified teacher.

Whilst we should like to think that this is an exaggerated and unduly pessimistic view, there can be little doubt that our present arrangements for the supervision of

practical experiences fail to maximize the impact that teacher educators make on the subsequent professional behaviour of their students. That this merits identification as a serious problem depends on the argument that, particularly during a period of rapid change in curricula, techniques of teaching and forms of school organization, an essentially conservative type of teacher preparation is likely to be inappropriate.

If intending teachers are, in effect, to be trained by practicing teachers, there is little likelihood that they will become adequately equipped, either in terms of skills or attitudes, to meet the demands for adaptability and reorientation that inevitably await them. The solution to this problem, it is suggested, may well be found in the extent to which students are able to undergo adequately supervised practical experiences before they encounter the full rigours of practice teaching.

To send a student into a school after a brief, largely theoretical introductory course is perhaps to invite him to turn to other sources of help and influence in an attempt to establish a modus vivendi in the classroom. This arrangement is analogous, perhaps, to giving a learner driver her/his first lesson in the middle of heavy city traffic. It is often considered advisable to allow her/him to become familiar with the management of her/his vehicle before exposing her/him to such hazards.

Examinations and Assessment

Of the possible forms of assessment—formal examinations of the traditional kind, objective tests used at intervals or massed towards the end of the course, and forms of continuous and cumulative assessment based on the work accomplished by the students throughout the course—each has its advocates, who are able to adduce arguments to support their case.

The problem of choosing among these various possibilities involves considerations similar to those discussed in relation to the choice of teaching methods. The modes of assessment adopted in teacher education establishments may be regarded as serving two distinct purposes.

The first is to afford a reliable measure of the students' progress and achievements. The second is to expose the students to the methods of examining and testing that they may be involved in administering when they come to serve as teachers in schools. We would again suggest that a consciously experimental approach might, with advantage, be adopted. They could be invited, for example, to submit themselves to various forms of assessment, primarily in order that they might discuss their experiences with their tutors in terms of the effects that a particular procedure appeared to have on their motivation and study habits, and also so that they might develop an estimate of its value as a means of appraising their progress or diagnosing the deficiencies in their knowledge or capabilities.

It would be feasible, for example, to submit the same, or strictly comparable parts of the course to more than one form of assessment, so that all concerned would have the opportunity to draw comparisons between them.

This suggested procedure might serve to familiarize students more completely with the available forms of assessment that they might be called upon to employ as teachers and to afford them deeper insights into their relative merits than could be

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provided by lectures or discussions. It might also provide the staff themselves with some information concerning the acceptability and reliability of various means of appraising the progress and achievements of their students.

It is unlikely, however, to provide an adequate answer to the problem of choosing the most valid methods of determining the extent to which the objectives of the course have been fulfilled. For this purpose, we must depend on the procedures of curriculum evaluation discussed earlier.

When the objectives of the course have been satisfactorily defined in operational terms the kind of assessment required to determine the extent to which they have been attained will become readily identifiable. This, as we have seen, calls for specifying the behavioural and attitudinal changes that particular parts of the course are intended to promote. The nature of these changes and the kind of situation within which they may be expected to manifest themselves will indicate the forms of assessment that will be most appropriate for their evaluation.

CHECK YOUR PROGRESS

1. What is the range to which institutions responsible for the education of teachers vary?
2. In which direction is the criticism towards teacher education institutions usually directed?
3. What is the chief obstacle faced by groups of individuals sharing responsibility for teacher education?

3.3 CHANGES IN TEACHER EDUCATION PROGRAMME AND STATUS OF IMPLEMENTATION

It is important, first, to identify the nature of the problem of teacher education and its place in the theory and practice of education as a whole. Teacher education is an activity in which education and school are regenerated. Although the necessity and continuity of education are furthered by the growth of knowledge and the development of society and culture, teacher education may be regarded as one of the prerequisites for the promotion and continuation of organized education as a whole.

Furthermore, the proper preparation of teachers contributes to more purposeful and better planned education. The practical and theoretical problems of all fields of education are centered in teacher education. Consequently, the system of teacher education determines the character of an educational system. It might seem, at first, that teacher education would benefit from this singular position. In actual fact, however, it has not received the attention it deserves; its special position has, on the contrary, given rise to difficulties.

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While preparation for other professions is influenced to a significant extent by sectors of life outside the school system, such as industry, economy, medicine, law, culture and scientific research, teacher education is more or less confined within a given educational system, with all its inertia and reluctance towards change. It could well be argued that teacher education should take the lead in the development of an educational system and that it should be given priority in the social and educational measures to be taken by States.

However, the history of education shows that in practice, teacher education has hitherto been dealt with only in an *ex post facto* manner. Even though we do not presume that this approach could be radically changed, we consider teacher education as one of the key areas for future reform in all educational institutions. Educational objectives and means cannot be changed until the education of teachers has been changed.

In spite of the importance we attach to teacher education, we do not pretend that it is the only factor that can change or influence the form of organized education in the modern world. The practical importance of teacher education is, perhaps, even greater in the developing countries where, from both the qualitative and quantitative aspects, the establishment of an optimal system of teacher education is the *sine qua non* of educational, social and economic development. In these countries, the primary problem is to give an initial impetus to teacher education, while in the industrially developed countries it is a question of keeping pace with current developments in other fields.

It is impossible to decide in which part of the world practical solutions are more difficult to achieve. A lack of economic and other means hinders progress just as much as fixed traditions and conservative public opinion. We believe, however, that the problems in both developing and developed countries have, essentially, a common theoretical basis. A comparative approach will enable us to incorporate isolated national experiences and efforts into an international framework, to determine fundamental trends and factors and to project future development.

The first of the two major proposals for study and research in this area is that, by applying the processes of rigorous, critical analysis, an attempt should be made to associate the various components of teacher education within an articulated conceptual system. The ultimate objective of such inquiries would be to establish theories of teaching and hence of teacher education, which will enable us to identify the content and methods that will be most appropriate and serviceable. This is the long term goal of such studies. In the short term, we would hope to establish a number of guiding principles which would command a sufficiently broad consensus to allow us to fashion courses of teacher education that exhibit a logical coherence.

There is evidence of a developing interest in this fundamental and comprehensive approach to the problem of curriculum and content, and there is one promising line of inquiry to which we should particularly like to draw attention. This is a current project of the American Association of Colleges for Teacher Education, called 'A Proposal for the Revision of the Pre-service Professional Component of a Programme of Teacher Education' (LaGrone, 1964).

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This latter constitutes an interesting attempt to devise systematic teacher education courses, in which the aims, curricula and methods are overtly interrelated within an explicit conceptual system. We have referred to this as a promising line of inquiry because it has progressed sufficiently to have yielded concrete illustrations of courses for which a recognizable rationale can be provided.

In other words, those who have participated in this project have demonstrated the feasibility of the approach that we advocate. Other relevant topic is the extensive application to teacher education of those methods of empirical evaluation that are being employed in other parts of the educational system. Curriculum evaluation is regularly recommended by teacher educators as a desirable activity for their students to undertake when they become teachers in schools. It has not until recently, however, been seriously considered as a serviceable means of resolving some of the issues within teacher education itself. There are signs that now, rather belatedly, its potentialities are becoming recognized.

A number of studies have been reported in which established practices are being submitted to this form of scrutiny and others in which reforms in teacher education are being introduced and provision made for their continuous evaluation. Various members of the conference were also able to report that studies of this kind are currently being conducted or contemplated in several different countries. Tyler and Okumu (1966) have provided an excellent outline of the way in which curriculum evaluation might, with advantage, be applied to teacher education courses. It involves those concerned, of course, in a good deal of disciplined thought as well as in the drudgery of collecting the array of data required in this kind of exercise.

The first step in the process is to formulate the objectives of teacher education in operational terms, that is, to specify the behavioural changes and modifications of attitude that the course is intended to bring about. The next task is to identify and to organize the set of experiences to which students need to be exposed if the declared aims are to be fulfilled. Finally, it is necessary to seek evidence concerning the extent to which the total operation has been successful. It will be recognized that these two suggested lines of inquiry are not independent. In effect, curriculum evaluation calls for the establishment of a rationale for teacher education and then furnishes a means of determining the extent to which this has proved to be serviceable.

Ideally, these two forms of investigation should coalesce to form a model for fundamental research in teacher education. By developing tentative theories to guide the organization of courses and using the techniques of curriculum evaluation to determine their effectiveness and thus to provide feedback information, we should be applying scientific method, in its classical form, to the study of the problems with which we are concerned. And most of the specific suggestions for study and research that we have already put forward in this report and of those that we shall recommend in later sections could be accommodated within this overall design.

James Conant's widely read *The Education of American Teachers* has similarly conceived of teachers as technicians, who, while they must be reasonably well prepared in the substantive materials they teach, can easily learn the necessary pedagogical skills through apprenticeship. Essentially, it will be recalled, Conant

recommended that the power of the establishment be broken by eliminating prescriptive licensing requirements and restoring substantial autonomy to colleges and universities in teacher preparation.

Certification would primarily require, in addition to a baccalaureate and overall institutional support for a candidate, evidence of successful performance as a student teacher under the direction of college and school personnel in whom the State (Education) Department has confidence, and in a practice-teaching situation, in which the State (Education) Department approves. Behind such a recommendation, if one accepts the explicit logic of Conant's argument, is the faith that were it not for the restrictive power of the establishment, individual colleges and universities would devise exciting experimental programmes for the preparation of teachers. Institutions need only to be freed from the repressive control of the National Education Association and its counterparts at the state level in order to think and act creatively about the substantive problems of teacher preparation.

Behind such a recommendation, if one follows the implicit logic of Conant's argument, lies the assumption that the serious, systematic study of educational processes is an impractical dream. Conant goes to great lengths to avoid offending educationists, but it is obvious that he does not recognize the possibility of their learning to control their craft. He would tolerate the academic study of teaching, if a particular college or university wished to be indulgent towards its professors of education, but essentially, he bases his hopes for reasonable teacher preparation on the apprenticeship system.

3.3.1 Increased Reliance upon Academic Disciplines

A major factor in explaining the 'truce among educators' is the markedly increased reliance upon the academic disciplines in the preparation of teachers. This new emphasis, expressed in a variety of forms, has helped to build shared values and common frames of reference. A particularly significant example of common commitment to the disciplines has been the aforementioned efforts of scholars in concert with experienced teachers to revise school curricula.

All of the national programmes of curricular reform rely upon the great organizing principles which have been developed historically in the various academic disciplines. The logical structures used to impose order upon knowledge and experience are seen as the crucial patterns to be explored by pupils.

Another instance of increased reliance upon the academic disciplines can be documented in the recent staffing policies of schools of education, particularly those at the graduate level. Through the early fifties a 'generalist' approach to the study of educational phenomena prevailed. 'Education' was perceived as a single and distinct field rather than as processes and institutions which require investigation through the analytical tools and conceptual modes of a number of disciplines. Faculty appointments were confined to persons who held doctoral degrees in education, either in some field of practice or in a very broad programme of 'foundational' studies. In effect, and sometimes even intentionally, the 'disciplinary' aspects of graduate teaching and study suffered neglect.

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From the mid-fifties onward, the dangers of relying on a survey approach to educational studies began to be apparent. 'Education' had proved to be curiously sterile in the production of significant new solutions to the pressing problems of the schools. It became increasingly evident that the conventional academic disciplines were forging ahead in the development of new tools for, and in the application of old ones to, the educational problems of the 1950s.

This was especially evident in the social sciences, and markedly so in economics, political science, anthropology, and sociology. Historians were borrowing methods from the social scientists in attempting to interpret the American educational experience as well, and analytic philosophy promised a fresh and vigorous critique of old and hitherto accepted concepts. All of this was too valuable and potentially fruitful to be ignored in staffing decisions.

Most of the new appointees have been recruited from the behavioural sciences and from philosophy, but a significant number of persons of first-rate distinction in a teaching field and interested in the pedagogical problems of their discipline have also accepted professorships in schools of education. In comparable fashion, schools of education now seek persons interested in the analysis of practice through the use of conceptual tools developed in relevant disciplines.

In an earlier period of the history of Teachers College, Columbia University, Dean James Earl Russell assumed an inevitable dichotomy between 'professionally-minded' members of the faculty interested in practice and 'academically-minded' professors interested in research and inquiry.

The College no longer considers such polarization inevitable. New appointees in the 'professional' departments, while primarily concerned with the improvement of practice, have been equally committed to the analysis and interpretation of practical experience. We have sought persons of activist temperament who, far from being 'non- academic', understood the practical value of working in close association with scholars in command of appropriate disciplinary tools.

There are many other manifestations of this increased reliance upon the academic disciplines. Recent changes in the certification requirements of the various States have stressed the need for depth of knowledge in the teaching field. A growing number of institutions now expect prospective elementary school teachers to develop an academic 'major' as well as sufficient breadth in the liberal arts to be able to handle the diverse subjects taught at the primary level. One intent, of course, is to ensure that the teacher is provided with the intellectual leverage to be able to continue to grow as a person as well as a classroom practitioner.

3.3.2 Demise of Separation in Teacher Education

Throughout the nineteenth and for the initial one-third section of the twentieth century, teachers of the elementary schools were educated in separate institutions specifically organized for this single purpose. As has been true in other parts of the world, these isolated institutions tended to be vocational in orientation, under-financed, attractive to a limited range of students, and somewhat defensive about their second-class ranking in the prestige hierarchy of American higher education.

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The primary emphasis of the separate normal schools and teachers colleges tended to be on process—the processes of teaching, of learning, of communication, and of growth and development. Particular stress was placed on the teacher's responsibility for understanding the child, for motivating him, for guiding his growth, and supervising his learning.

While it was conceded that the prospective teacher needed some knowledge of subject matter, more or less adapted to the level he planned to teach, his fundamental requirement was thought to be control of the art and science of communication. In the colleges and universities, on the other hand, it was assumed that successful teaching is primarily dependent upon mastery of the substantive content to be taught. The person who knows something thoroughly, so the ideology held, can easily teach it especially if she/he is a 'born teacher'.

Pedagogical tricks and techniques, to the degree they are important at all, could be learned, it was felt, more or less, automatically during the first years of teaching. In the years between the two World Wars, the physical basis for this dichotomy of view concerning the proper preparation of teachers slowly eroded. The normal schools became four-year teachers' colleges and then gradually general purpose collegiate institutions. Professors committed to teaching and inquiry in the academic disciplines were appointed to their faculties.

At the same time, more and more departments and schools of education were introduced into established colleges and universities. Fewer and fewer teachers, therefore, were prepared in isolation from their peers pursuing other vocational and professional goals. Nonetheless, the rift between liberal and professional educators grew steadily wider. The State colleges, while still somewhat bound by their normal school past, began to exercise some responsibility for the training of secondary school teachers. Faculty members in schools and departments of education assumed increasingly unilateral control over the total education of prospective teachers and sometimes encouraged students to 'Major' in education rather than in one of the academic fields. Licensing or certification requirements, including strictures concerning professional training, were established for secondary school teachers thus extending the influence of those holding professorships in education.

Finally, the further broadening of the high school curriculum to include an ever greater proportion of studies outside the traditional liberal fields helped to weaken communication between scholars interested in the secondary school and those concerned with the college. In the early fifties, the rift widened still further and overt hostilities erupted.

During the immediate post-sputnik period, criticism of American public education and of educationists responsible for teacher preparation was delivered so frequently as to risk satiating even the most avid audiences. Predominantly, criticism took the form of assessing blame for the presumed failure of our schools to prepare scientists capable of out-manoeuvring the Russians in space.

It was ordinarily assumed that problems could be basically resolved if only educationists would stop being anti-intellectual and would admit that the primary purpose of schools should be the cognitive development of students and the primary

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emphasis in teacher education, the development of sound scholarship in the teaching field.

For the past several years, teaching has been attracting a larger number of exceptionally able young men and women who are challenged by both the social importance and the complexity of contemporary educational issues. The flow of able persons into teaching can hardly be maintained let alone be increased if their preparation were to consist of mastering merely imitative skills rather than developing the intellectual tools for pedagogical analysis.

Most important is the very moment in our history when society seems finally to be taking education seriously hardly seems the time to be satisfied with ancient arrangements for tending school. The need for a more effective, more intellectually demanding, and more abstract education is obvious to all.

Many educators feel that now is the opportunity to attempt the preparation of teachers capable not only of manning classrooms but also of discovering more about the yet unrevealed mysteries of their craft. Whether the schools will be sufficiently changed so as to be in harmony with a professional image of teaching remains to be seen.

3.3.3 Education Technology

Paralleling is, in part, dependent upon the development of increased research sophistication has been the growth of educational technology and the emergence of the so-called education industry. While the teaching machine was invented in the twenties and the computer and television prototypes in the years before Second World War, their broad-scale application to education was not envisaged until the present period.

Grounded in neo-behaviouristic psychology and energized by the impressive power of electronics, educational technology promises a veritable revolution in teaching. Every teacher is to be afforded a steady flow of ingeniously designed learning materials and every child is to be guaranteed access to experts in every field of the curriculum. The teacher is to be freed at last, it is claimed, of the aversive routines of his craft.

She/he will be able to assign to machines the burden of dispensing information, of supervising drill activities, of evaluating informational learning, and of providing diagnostic cues about individual difficulties. The problem is also to be able to detect a method adequate enough to assess the degree of realism in these visions of educational technology.

Those convinced of an imminent electronic magic have been somewhat taken aback by the boredom children have expressed towards educational television, by the rejection of early teaching machines as mere mechanical page turners, and by the inability, to date, to demonstrate any pedagogical advantage of computer-assisted instruction over plain ordinary teachers.

In the main, however, the enthusiasm of the converts has hardly been dampened, and educational literature continues to abound with roseate promises. The economic power of this newly organized education industry tends to make

believers of even the most sceptical among us. The massing of corporate wealth and technical competence to provide information and materials for students across the land is an awesome development.

Combining editorial materials and electronic technology in a systems approach to educational problems is an inherently exciting business. While we in professional education have been duly impressed, we have only begun to adjust (perhaps we do not really believe in electronic miracles) to technology's potential impact. To some degree, current evidence of this educational industrial revolution may be found in schools and teacher preparatory institutions throughout nations.

The performances of teachers in micro-teaching situations or in live classrooms are recorded on video-tape for later analysis. Language laboratories, replete with all manner of feedback devices, operate in thousands of schools. No self-respecting school system, at least those in the relatively well-financed suburbs, is without its full quota of gadgets—tape-recorders, overhead projectors, transparencies, television receivers and cameras, six millimetre film loops, automated self-learning devices, access to, if not always ownership of, and a computer.

In a handful of actual schools, computers are in daily use in important areas of the curriculum. Few teacher preparatory programmes fail to make at least passing reference to the 'xeroxed' world of tomorrow. Essentially, however, we in teacher education have simply made token acknowledgment of the possibilities of educational technology. We have played with the new electronic toys, but we have not systematically examined what they may eventually mean.

The technological revolution has not yet forced our action, because, to date, the development of gadgetry far outstrips the necessary concurrent manufacture of curricular materials—the information and concepts to be fed into the machines. This production imbalance, referred to with irritating frequency as the gap between 'hardware' and 'software', allows most schools to continue operations in the old familiar style.

Teachers, similarly, may yet be, and indeed usually are, prepared with only a cavalier nod toward the General Learning Corporation or its counterparts. Until production schedules are smoothed out, then, there is still opportunity to plan alterations in teacher education and, perhaps more important, to reconsider aspects of the teacher's role in the classroom. There is little evidence, however, that this lead time is being profitably used for such planning purpose.

3.3.4 Staff Utilization

Another factor significantly affecting teacher education, particularly since 1964, has been the development of new patterns of staff utilization. Schools at both the elementary and secondary levels have sought to increase their effective teaching forces by employing para-professionals as teacher aides and to utilize existing instructional resources more effectively by organizing teachers in co-operating teams.

The motivations for such changes in staff deployment have been varied as have the utilization patterns which have emerged. Teacher aides have been employed, ordinarily on a part-time basis, for many specific purposes, but essentially they are

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expected to relieve the full-time teacher of the time-consuming, but not professionally demanding, routines of his craft. Aides may work as clerks—keeping attendance or recording grades, marking papers, and mimeographing instructional materials prepared by the teacher.

They may also serve as instructional assistants—supervising drill activities, responding to difficulties exeperienced by individual children, or, if they have specialized skills in language usage, reading and correcting themes and papers for English classes. They may work with an individual teacher, with several individual teachers, or with a teaching team. 'Team teaching', as it has been defined by Shaplin and Olds, 'is a type of instructional organization, involving teaching personnel and the students assigned to them, in which two or more teachers are given responsibility, working together for all or a significant part of the instruction of the same group of students.'

It is intended as an alternative to the traditional assignment of one teacher to one class. Ordinarily, team teaching has involved varying-sized pupil groups for varying kinds of instructional tasks—large assemblages of one hundred to two hundred pupils to hear lectures or to observe demonstrations, seminar-sized groups of a dozen or so to explore the relevance of particular content, and individual or two or three person groups to diagnose learning difficulties or to develop individual projects.

Teams have been organized in both a hierarchical form (master teacher supervising the work of varying levels of senior teachers, beginning teachers, and interns) and on a collegial basis (persons of equal status working together). Team teaching has rapidly assumed the dimensions of a major educational movement. Starting with a few pilot projects in 1956 and 1957, the movement spread to several hundred communities distributed widely throughout the country, and there are not yet signs of any cessation of this rapid growth.

A number of major universities participated actively in the early development of team teaching and a high level of professional interest, both pro and con, continues to be expressed in meetings organized for the description and analysis of team teaching at local, state, and national conferences of teachers, supervisors, administrators, and school board members. In many communities, programmes have progressed far beyond the experimental stage and include the reorganization of entire schools, the spread of teams throughout the school system, and even the construction of school buildings designed to meet the requirements of the new programmes.

There are many factors which explain this rapid development. Some have seen in team teaching a viable means of meeting the teacher shortage which has so plagued boards of education in the post-war years. Teams of professional teachers, especially when assisted by various part-time technicians, give promise of influencing more pupils than the same number of teachers working in isolated individual classrooms. Others have viewed team teaching as a means of attaining a more rational division of labour among teachers.

From this perspective, team members are expected to serve as technical specialists both in aspects of pedagogy—lecturing, leading discussions, supervising

drill, evaluating pupils—and in aspects of the curriculum. Still, others have heralded team teaching as a means of creating new status roles for teachers, i.e., master teacher, team leader, assistant teacher, and intern, which would provide broadened career opportunities. Some teacher educators have been attracted to team teaching as a device for relieving the physical and intellectual isolation of teachers in sealed-off classroom cubicles.

In short, a major reason for the dramatic spread of team teaching has been its loose definition and its consequent capacity for attracting a wide range of support. There has, as yet, been little effort to assess the effectiveness of teaching teams whatever their organizational form. A number of investigations have been conducted, however, which make gross comparisons of pupil learning under teams as opposed to individual teachers.

The evidence to date clearly fails to substantiate the hopes of those who assumed that pupils would tend to learn more if taught by groups of teachers. An interesting finding, however, and one that keeps turning up in the research literature is that teachers tend to prefer team arrangements.

Whether this preference is simply another instance of the Hawthorne effect or a genotypical phenomena remains to be seen. It is not yet possible, then, to make an objective assessment of the long-term importance of team teaching for teacher education in the United States. To date, nonetheless, pre-service programmes in numerous colleges are being revised to prepare prospective instructors for the new associations and new responsibilities which team membership entails.

Of even greater potential importance is the in-service educative effect of team organization. To the extent that team teaching encourages collegial association, provides expanded opportunities for investigation and experimentation, and adds para-professionals to free career teachers for basic intellectual work, it could make the school a centre of education and inquiry for adults as well as for pupils.

3.3.5 Patterns of Collaboration

Traditionally, teacher education in America has been planned and managed unilaterally by colleges and universities. The lower schools have been viewed as passive employers of whatever teachers the college deigned to prepare. Rarely have the schools been privileged to participate in the development of programmes and curricula for teachers still in training. There have been notable exceptions of course.

The Dewey School at the University of Chicago during the years 1896 to 1904 served as a valued source of ideas about teaching as well as a laboratory for testing practices developed by university professors. Other university laboratory schools, notably the Ohio State University schools and the Horace Mann-Lincoln School of Teachers College, Columbia University for a time profoundly affected the education of teachers.

Many of the practice schools affiliated with normal colleges, particularly when the college curriculum consisted primarily of the systematic mastery of what was taught at lower levels, naturally played a significant part in teacher education. The

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practice schools were ordinarily captives of the colleges, however, and were not part of the public school system.

Similarly, the university laboratory schools tended to become special schools for the education of faculty children rather than centres of experimentation influencing teacher education curricula. The public schools, of course, have long participated physically in the preparation of teachers by accepting student teachers and interns. Ironically, however, apprenticeship arrangements, while almost universally accepted as the most important segment of teacher preparation, have rarely been grounded in systematic school-university collaboration.

The colleges have assigned student teachers to individual teachers willing to accept them but, ordinarily such arrangements have involved not inter-institutional planning and instead, simply a personalized apprenticeship under a single teacher. The supervising teacher has usually been invited to judge the instructional skills of his apprentice, but such estimates have been used to evaluate the individual student-teacher rather than the system which produced him. In many cases, the supervising teachers were provided little or no foreknowledge of the apprentice's competencies in his teaching field or in pedagogy.

Typically, the student teaching experience has been divorced from instructional theory, unaccompanied by serious and concurrent analysis of the teaching act, and unrelated to either previous or continuing collegiate studies. The casual and personalized arrangements which have normally obtained for apprentice teaching have also characterized school-university relationships in other areas.

Rather than systematic joint study of professional problems on an institutional basis, the more frequent pattern has been individual professors of education providing personal, sporadic, and often merely hortatory advice and consultation to particular schools. When schools of education as a whole have developed contractual relations with school systems, it has ordinarily been for a one-shot survey rather than for a long term, continuing investigation of important educational questions. In short, the lower schools and the schools of education are organized as autonomous units and relations between them have been rarely productive.

During the last few years, however, and particularly since the late fifties, there have been signs of more viable school-university co-operation. Basically, the trend toward more effective working relationships is to be explained as a part of the general response to public concern about the quality of education. The introduction of team teaching necessitated, at least during the early stages of the movement, school-university collaboration to institutionalize the new instructional arrangements. With its emphasis upon the signal importance of student teaching, the Conant Report on The Education of American Teachers stimulated interest in more rational school-college partnerships.

Private philanthropic groups, notably the Ford Foundation, urged closer agreements for internships and for many types of educational innovation. The United States Office of Education, by providing funds for research and development centres and Regional Educational Laboratories, similarly sought to strengthen co-operation among various levels of educators. At Teachers College, Columbia university, the

Metropolitan School Study Council, although its founding antedated the more general movement, established one pattern of continuing relations with groups of schools. The Harvard School-University Project for Research and Development—known by the acronym of SUPRAD—and the University of Chicago's Midwestern Administration Center represented similar attempts to institutionalize co-operative arrangements.

In many state universities older Field Study Bureaux, which have long provided surveys and studies on an ad hoc basis, are in process of reformulation into agencies capable of continuing work with member schools. Today, the need for the further development of school-university collaboration is universally recognized. The American Association of Colleges for Teacher Education, through its subcommittee on School-College Relations in Teacher Education Relationships and Teacher Education, has published several reports on the subject.

New visions of the teaching career, based upon repeated university study and concurrent university review of school practices, are frequently publicized. A Joint Committee on State Responsibility for Student Teaching, sponsored by the National Education Association and the National Commission on Teacher Education and Professional Standards, has prepared a widely-distributed statement on 'A New Order in Student Teaching'.

3.3.6 Staffing

While the major public and private university schools of education and many well-financed colleges have strengthened and expanded their faculties by recruiting scholars to the study of education who were trained in an academic discipline and by appointing experienced educators committed to the analysis as well as the dissemination of practice, a large number of teacher preparatory institutions have continued to depend upon one or two main departments of education.

There are approximately 1500 colleges and universities engaged in the training of teachers; unfortunately, many have neither the finances nor the facilities to mount reasonably staffed professional programmes. In such institutions, the harassed professor of education is forced to be a generalist, offering state-required certification courses in psychology, history and philosophy of education, the school as an institution, teaching methods, and supervised student-teaching.

Her/his necessarily limited competence in some areas cannot be forever hidden from her/his more specialized colleagues in the arts and sciences. Neither can such a teaching schedule allow the continued contact with a discipline which might nourish his performance as a professor. Under such circumstances, the academic civil war continues as a local skirmish and the professional preparation of teachers remains devoid of disciplinary enrichment. In the early fifties, the American Association of Colleges for Teacher Education and allied educational associations created the National Council for the Accreditation of Teacher Education.

This agency has not yet developed either the strength or the cohesiveness to deal with poorly staffed teacher preparatory programmes. Neither have we produced sufficient numbers of recently trained professors of education to meet the rapidly

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growing staffing needs of American colleges. Adequately trained college professors in all fields, including teacher education, will continue in short supply for at least another ten years.

3.3.7 Teacher: Technician or Professional?

Cutting across all other developments in teacher education is the yet unresolved dilemma as to whether the teacher is properly conceived as a technician or as an autonomous professional. If effectiveness in teaching is based upon essentially static knowledge, the various pedagogical skills required are best learned by apprenticeship under a master teacher. As long as the aim of professional (to be more accurate, vocational) studies in teacher education is simply to ready a neophyte for the immediate problems of the classroom, direct involvement in practice promises to be more instructive than didactic discussion of 'desirable' procedures.

A particular preparing institution, if it wished to cater even further to the vocational motivations of its students, might also provide an orientation to the job through a historical or sociological look at the school as a social institution, a 'practical' review of human development and of learning principles, and a repertoire of techniques and procedures proved useful by experience. If, on the other hand, preservice teacher education is intended to provide a foundation for career-long development as an inquiring scholar-teacher, initial training must emphasize ways of knowing. There must be less concern for job information already discovered and far more interest in the strategies for acquiring new knowledge.

Philosophy of education would include epistemology and an introduction to the philosophy of science. Studies in psychology might furnish a working knowledge of research methodology and of experimental design, observational categories for observing and recording the behaviour of children, and an introduction to the complex of measurement and evaluation. Advanced studies would provide supervised research experience.

Courses in educational sociology would develop analytical tools for understanding student subcultures and the characteristics of pupils in a particular school. Courses in methods of teaching would eschew talk about techniques and procedures—laboratory experience and apprenticeships would be relied upon to develop these skills, and would focus upon the critical analysis of teaching behaviour and a beginning approach to the logic of pedagogical strategies.

In short, teacher education would seek to prepare teachers not as complete and polished practitioners but as beginning professionals who possess the trained capacity and the attitudes requisite to lifelong learning. There are several current developments which derive from the first conception, the idea of the teacher as a reasonably intelligent and well-trained technician.

As was indicated earlier, the dominant drift of educational technology is to provide such elegant and tamper-proof materials and pupil-controlled machinery that not even the most ill-prepared teacher could interfere with learning. While there have been those who decry this drift, there is yet no assurance that machine-tending will not become the major activity of teachers. Similarly, the new national curriculum

makers appear to think of teachers as mere technicians. Their hope too, is to devise materials which can make their desired impact upon children irrespective of the ignorance or sophistication of a particular instructor.

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CHECK YOUR PROGRESS

4. What would be the ultimate objective of inquiries into the areas of education in developed and developing countries?
5. Why is curriculum evaluation highly recommended by teacher educators?
6. Why has student teaching experience become divorced from instructional theory?

3.4 SUMMARY

- õ Teachers in our time are no longer mere disseminators of knowledge. It has become the teacher's main task to help young people in coping with a welter of information and in putting it into some order.
- During the past decade, the volume and intensity of this latter kind of criticism have reached uncomfortable proportions.
- The conspicuous lack of useful research on the education of teachers seems to suggest that all is not well in this respect.
- The institutions responsible for the education of teachers are extremely varied in character.
- These differences are the result of the history of teacher education as an organized enterprise.
- Teacher education institutions, in general, still suffer to some degree from the stigma attached to their humble origins, and, in many instances, their status in still insecure.
- In many countries, the status of teacher education is regarded as dependent on the extent to which it becomes accepted by and associated with the universities.
- If teacher education is left to the direction of governmental agencies on behalf of the consumers, so to speak, this direction might well extend beyond the determination of the numbers and categories of the teachers to be produced, and might result in an erosion of the area for which teacher educators now exercise professional responsibility.
- On purely practical grounds, the Heads of secondary schools look for, and frequently do not find, teachers able and willing to teach several subjects to the more junior pupils.
- For the younger pupils in secondary schools, it is maintained, there is considerable advantage in the arrangement whereby they may be attached to

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someone who will be their teacher for a range of subjects and thus be in regular and close contact with them for considerable parts of the day.

- The tendency for secondary school pupils to develop strong interests in and marked preferences for particular subjects and areas of knowledge is clearly not to be discouraged.
- It is reasonable to suppose that the tendency for secondary school pupils to manifest markedly uneven intellectual development is associated with that of populating school staffs with relatively narrow specialists.
- A teacher who could claim affiliations with each of two factions, the sciences and the humanities, for example, who were eyeing each other suspiciously could no doubt serve as an effective mediator.
- Nowadays, the teacher educator does not find himself in this comfortable and respected position.
- It is because the teacher has been temporarily assigned the role of a prophet rather than that of an acknowledged expert in pedagogic matters that many, as we have seen, have argued that her/his services are no longer required.
- The choice of teaching methods in an institution for the education of intending teachers is a much more complex issue than it is in other educational establishments.
- In relying on discussion as a teaching device there is a danger of allowing erroneous conclusions to be formed and irrelevant associations to be made.
- It is generally recognized that an important part of any programme of teacher education is the provision of opportunities for the students to undergo practical experience of teaching.
- It is important, first, to identify the nature of the problem of teacher education and its place in the theory and practice of education as a whole.
- The practical importance of teacher education is, perhaps, even greater in the developing countries where, from both the qualitative and quantitative aspects, the establishment of an optimal system of teacher education is the *sine qua non* of educational, social and economic development.
- There is evidence of a developing interest in this fundamental and comprehensive approach to the problem of curriculum and content.
- James Conant's widely read *The Education of American Teachers* has conceived of teachers as technicians, who, while they must be reasonably well prepared in the substantive materials they teach, can easily learn the necessary pedagogical skills through apprenticeship.
- Another instance of increased reliance upon the academic disciplines can be documented in the recent staffing policies of schools of education, particularly those at the graduate level.
- From the mid-fifties onward, the dangers of relying on a survey approach to educational studies began to be apparent.

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- Historians were borrowing methods from the social scientists in attempting to interpret the American educational experience as well, and analytic philosophy promised a fresh and vigorous critique of old and hitherto accepted concepts.
- Most of the new appointees have been recruited from the behavioural sciences and from philosophy, but a significant number of persons of first-rate distinction in a teaching field and interested in the pedagogical problems of their discipline have also accepted professorships in schools of education.
- New appointees in the 'professional' departments, while primarily concerned with the improvement of practice, have been equally committed to the analysis and interpretation of practical experience.
- The primary emphasis of the separate normal schools and teachers colleges tended to be on process—the processes of teaching, of learning, of communication, and of growth and development.
- Pedagogical tricks and techniques, to the degree they are important at all, could be learned, it was felt, more or less, automatically during the first years of teaching.
- Licensing or certification requirements, including strictures concerning professional training, were established for secondary school teachers thus extending the influence of those holding professorships in education.
- For the past several years, teaching has been attracting a larger number of exceptionally able young men and women who are challenged by both the social importance and the complexity of contemporary educational issues.
- Many educators feel that now is the opportunity to attempt the preparation of teachers capable not only of manning classrooms but also of discovering more about the yet unrevealed mysteries of their craft.
- While the teaching machine was invented in the twenties and the computer and television prototypes in the years before World War II, their broad- scale application to education was not envisaged until the present period.
- Grounded in neo-behaviouristic psychology and energized by the impressive power of electronics, educational technology promises a veritable revolution in teaching.
- To some degree, current evidence of educational industrial revolution may be found in schools and teacher preparatory institutions throughout nations.
- Another factor significantly affecting teacher education, particularly since 1964, has been the development of new patterns of staff utilization.
- Some teacher educators have been attracted to team teaching as a device for relieving the physical and intellectual isolation of teachers in sealed-off classroom cubicles.
- Typically, the student teaching experience has been divorced from instructional theory, unaccompanied by serious and concurrent analysis of the teaching act, and unrelated to either previous or continuing collegiate studies.\

- The introduction of team teaching necessitated, at least during the early stages of the movement, school-university collaboration to institutionalize the new instructional arrangements.
- New visions of the teaching career, based upon repeated university study and concurrent university review of school practices, are frequently publicized.
- As long as the aim of professional (to be more accurate, vocational) studies in teacher education is simply to ready a neophyte for the immediate problems of the classroom, direct involvement in practice promises to be more instructive than didactic discussion of 'desirable' procedures.

3.5 KEY TERMS

- **Disseminators:** It means to scatter widely.
- **Strictures:** It means a restriction on a person or activity.
- **Clamour:** It refers to a loud and confused noise, especially that of people shouting vehemently.
- **Tantamount:** It refers to something equivalent in terms of seriousness.
- **Ephemeral:** It refers to something lasting for a very short time.
- ***Sine qua non:*** It means an essential condition; a thing that is absolutely necessary.
- **Baccalaureate:** It refers to an examination intended to qualify successful candidates for higher education.
- **Aversive:** It means causing avoidance of a thing, situation, or behavior by using an unpleasant or punishing stimulus, as in techniques of behavior modification.
- **Genotypical:** It refers to the combination of alleles located on homologous chromosomes that determines a specific characteristic or trait.
- **Hortatory:** It refers to something tending or aiming to exhort.

3.6 ANSWERS TO 'CHECK YOUR PROGRESS'

1. Between countries and within countries, institutions responsible for the education of teachers are found to range from those which, at one end of the scale, may be closely identified with secondary schools and those, at the other, which are housed within, or are manifestly equivalent in standard to Universities.
2. It is particularly towards the pedagogic courses in teacher education institutions that criticism is currently directed from outside.
3. The chief obstacle to achieving an effective integration of their efforts is the fact that each has tended to develop a defensive posture with regard to the relative status and relevance of his distinctive contribution.

4. The ultimate objective of inquiries would be to establish theories of teaching and hence of teacher education which will enable us to identify the content and methods that will be most appropriate and serviceable.
5. Curriculum evaluation is regularly recommended by teacher educators as a desirable activity for their students to undertake when they become teachers in schools.
6. Typically, the student teaching experience has been divorced from instructional theory, unaccompanied by serious and concurrent analysis of the teaching act, and unrelated to either previous or continuing collegiate studies.

3.7 QUESTIONS AND EXERCISES

Short-Answer Questions

1. How has the role of teachers changed in the past decade?
2. What could be the possible consequences of changing the effects of the character of teacher education institutions?
3. What role do the interrelated fields of knowledge play in teacher education?
4. What are the possible forms of assessment in the field of teacher education?
5. What was the origin of teacher education accompanied by?
6. Why is striking a balance balance between academic education and the pedagogic and professional elements considered necessary?
7. What are the problems faced by the Heads of secondary schools regarding curriculum and content designing?
8. What are the various points discussed in James Conant's *The Education of American Teachers*?
9. How did the arrival of qualified philosophers and social scientists affect the field of professional training?
10. What is meant by the term 'team teaching'?
11. What is the relationship between philosophy of education and philosophy of science?

Long-Answer Questions

1. What role does curriculum and content play in the field of teacher education?
2. Discuss the various problems that emerge while designing the courses for teacher education.
3. Critically analyse some of the pedagogical changes that were witnessed in the mid-fifties onward in teaching institutions.
4. How can techniques of teaching be modified in order to prove more advantageous for teacher education?

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5. Discuss the problem of staffing in the field of teacher education as it exists in various countries all around the world.
6. Discuss the various steps involved in the process of curriculum evaluation.
7. Explain the role of the teacher as a technician and as a professional.

3.8 FURTHER READING

Novak, James K. 1994. *Democratic Teacher Education: Programs, Processes, Problems and Prospects*. Albany: State University of New York Press.

Singh, Sudarshan. 2003. *Teacher Education*. New Delhi: Discovery Publishing House.

Levin, Barbara B. 2001. *Energizing Teacher Education and Professional Development with Problem-based Learning.* Virginia: Association for Supervision and Curriculum Development.

Shukla, R.P. 2004. *Teacher Education: Problems and Issues*. New Delhi: Sarup and Sons.

http://unesdoc.unesco.org/images/0013/001314/131421eo.pdf

UNIT 4 TEACHING PROFESSION AND TRENDS IN TEACHER EDUCATION

Structure

4.0 INTRODUCTION

The term professional preparation means preparing the teachers for developing skills and capacities for teaching. The term professional preparation is similar to the professional development of teachers. Professional development means the process of improving the capabilities and skills of teachers through innovative training programmes inside and outside the educational institution. It helps to boost the morale of teachers of an organization.

According to the Thesaurus of the Educational Resources Information Center (ERIC) database, professional development refers to 'activities to enhance professional career growth'. Fullan expands the definition to include 'the sum total of formal and informal learning experiences throughout one's career from pre-service teacher education to retirement'. Such activities may include individual development, continuing education, and in-service education, as well as curriculum writing, peer collaboration, study groups, and peer coaching or mentoring.

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It is a systematic effort to make a change in their perception, attitudes, beliefs, and classroom handling of children. Professional development is essential for every individual, whether employed or not. They should strive to enhance the quality of performance, to ensure an improvement on the personal and professional front. Professional development should include all types of facilitated learning ranging from normal degrees and by attending lectures, seminars, conferences, and workshops.

In this technological era, professional development goes beyond the act of training with emphasis on learning skills but also develops new insights into pedagogy and their own practice, and explores new or advanced understandings of content and resources. Technology gives support to teachers as they meet challenges in putting into practice their evolving understanding about the use of technology. Current technologies provide teachers with a cluster of support that help them continue to grow in their professional skills, undertakings, and interests. This unit describes teaching as a profession and the trends in teacher education.

4.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Assess teaching as a professional ethics of a teacher
- Describe and explain professional organizations for various levels and their roles
- Assess performance appraisal of teachers
- Analyse the outcomes and impact of teacher appraisal and feedback

4.2 TEACHING AND PROFESSIONAL ETHICS OF A TEACHER

Professional preparation courses are either general or skill-based. General professional preparation caters to general skills through basic personal education. Skilled development on the other hand, deals with the current profession, leadership qualities, managerial skills and enhancing a person's productivity. The courses are designed with the intention of developing a person's level of competency and professionalism. The successful completion of the course opens avenues for unlimited growth. Professional development is conceptualized as a 'learning process' which took place as a result of interaction between the teacher and their professional context.

4.2.1 Concept of Profession

The term profession is derived from the Latin word *profiteor* which means to profess. What is the meaning of the term profession? The Oxford English Dictionary defines profession as 'a paid occupation, especially one that involves prolonged training and a formal qualification' and in its definition of a professional; the dictionary uses the

words 'competent, skilful, or assured'. In this definition, we can see that there are three important aspects like payment, training and qualification.

You might have heard about the terms like professional and professionalism. These concepts are confusing, so it is worth considering them separately. A professional is someone who claims to possess knowledge of something and has commitment to a particular code of values. The term 'professionalism' is used to describe the methods, manner, and spirit of a profession and of its practitioners.

Viewed on various perspectives of a profession, generally the classification falls in two categories:

(i) Historical perspective

(ii) Sociological perspective

Historical perspective can be seen in relation with the era when a profession began to professionalize. It consists of four professions such as ancient profession (priesthood, university teaching, law and physician); the medieval trade profession (surgery, architecture); the industrial era profession (engineering); and the modern profession (teachers, social workers).

The sociological perspective of profession is related with two early sociological theories: trait model and structural-functionalism.

Trait Model of Professionalism

The sociological investigation of the professions began in the 1930s with attempts to identify the defining characteristics or traits that distinguished professions from other occupations. The most notable traits are the following:

- Skill based on abstract knowledge
- Provision for training and education, usually associated with a university
- Certification based on competency testing
- Formal organization
- Adherence to a code of conduct
- Altruistic service

Structural-Functional Model of Professionalism

The structural-functionalists built on trait models in the 1950s and 60s and provided the theoretical link between various traits. They argued, for example, that the traits of 'university training' and 'certification based on competency testing' follow logically from the trait of 'skill based on abstract knowledge'. A person who is not specialized may cause harm, the need for professionalization. For example, a pediatrician can examine children effectively than other doctors.

How does a profession differ from other occupation? For this, first one has to know the features of a profession. The American Association of Colleges for Teacher Education (AACTE) frames a set of features that distinguishes profession from other occupations. They are:

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- Professions are related to society and it provides essential services to the individual and society.
- Each profession has its own boundary of function.
- It possesses a body of knowledge and skills.
- The members of the profession are engaged in the service of their clients.
- Profession is organized into one or more professional associations.
- Profession is linked with other disciplines from which it draws its own applied knowledge and skills.

Whatever the perspectives, it can be stated that a profession has got its meaning and relevance in relation with society. It has a social status.

Teaching as a Profession

Each profession has its own culture derived from the role of its practitioners and the expectations that society has with respect to the professional service. Let us discuss the nature of a profession and how teaching reflects this nature. The nature of profession consists of the following factors:

- Payment
- Knowledge and skills
- Responsibility
- Recognition and
- Professional ideal of service

How are these factors related to teaching? When payment is considered, the professionals, including teachers are paid for what they do. However, this payment is one side of a contract, the other side deals with the services. A professional teacher is not simply one who does a matter-of-fact teaching but also one who has a duty to teach. The knowledge and skill required for efficient practice of a profession, however, differ from those required for the practice of other trades.

This knowledge and skill required for a profession include theoretical and practical knowledge. It can be acquired only through training over the years. For starting this training, a certain standard of general education has been attained. Responsibility towards one duty is must in any profession. A teacher is accountable for her/his work and also to whom she/he is dealing with.

While considering the connection between teaching as a profession and education, one can see that professional teaching qualifications fall under three headings—pedagogy, content and education. As far as pedagogy is concerned, the desired goal and the methodology of teaching is interconnected. In the case of content, the teacher should have the mastery of the subject. As the professional teacher is concerned with the education of others, she/he ought to be educated. The three main components of pedagogical content knowledge are:

- Knowledge of tasks
- Knowledge of students' prior knowledge
- Knowledge of instructional methods

The members of a profession not only see themselves as members of a profession but are also seen as a profession by the rest of the community. The community recognizes the value of teaching service. Recognition, therefore, carries with its social status. In being recognized as both skilled and responsible members of a community, the professionals will get increased social prestige, better pay, and independence.

In professional ideal of service, a person acts as a main person rather than as an agent. The person acts in her/his own interests rather than in the interests of others. Professional purposes are characterized in two related ways. First, they concern the interests of others. The others are people who need specialized help from the professionals. Second, their concern is in a special aspect. It means the specialized area, which a person has opted.

4.2.2 Need for Professional Preparation

Generally, there is a question related with what the need of professional preparation is. The changing demands of education made it compulsory to attain more and more skills and expertise. Professional preparation of teachers in the twenty-first century is not the typical 'sit and get' lecture format. In his book, *The Global Achievement Gap*, Tony Wagner lists out the twenty-first century skills:

- **Critical thinking and problem solving:** In the present century, the aim of education is not to produce passive listeners but active participation of learners is expected. When students become active learners, they will start thinking critically. Critical thinking is both a frame of mind and a set of mental capabilities. It is a mental activity of evaluating information and making judgments that can guide the development of beliefs and taking action.

  It includes asking questions, observing in a detailed manner and make assertions based on sound evidence. Through critical thinking, various problems can be analysed which necessitates the need for problem solving. Problem-solving is cognitive processing directed at transforming a problem from the given state to the goal state when the problem solver is not immediately aware of a solution method.

- **Collaboration across networks and leading by influence:** Today's education is based on collaboration and co-operation. Hence, it is necessary to teach students how to work unitedly. While working together, there is the need of leadership based on influence, not on authority. Now we have leaders leading out of authority not by influence. The present teachers might be trained how to lead the students based on influence. In a diverse classroom context, it is feasible to create alliances of groups who work together towards a common goal.

- **Agility and adaptability:** Agility means learning from experience and applying that knowledge in new situations. Adaptability is the ability to adjust with the changing situation. With the introduction of multiple intelligence theory in classroom, teachers have to perform multiple roles. These roles demand the ability to apply new knowledge and to adjust with the changing situation.

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- **Initiative and entrepreneurship:** Initiative is the ability to take action proactively. In a collaborative effort, children have to take initiative on their own. It is necessary on the part of the teachers to train children to take initiatives and responsibilities.

  In the context of education, those individuals who introduced new educational initiatives can be considered as educational entrepreneurs. As the teachers are expected to adopt reflective practices in their learning, they can be considered educational entrepreneurs. Initiative and an entrepreneurial spirit are not difficult to promote in classrooms, simply by encouraging students to think and by looking at failure as a takeoff spot for learning. One needs to teach students to consider failure as opportunities for success.

- **Effective oral and written communication:** Most of the times, it is the teacher who talks in a classroom with the participation from students. A teacher has to learn how to make learners participate in the teaching- learning process. The message that the teacher conveys must be transferred in the same sense. It is better to incorporate learning by doing activities in the classroom process.

- **Accessing and analysing information:** Accessing and analyzing information is the skill of not only gathering information on a certain topic, but also analysing the quality of that information. In this technical world, the students have more access to information so, the teachers should train them to detect the relevant from the irrelevant.

- **Curiosity and imagination:** Curiosity is a desire to learn and know about people or things that are unfamiliar. Imagination is the formation of a mental image through the creative power of mind.

The teachers must be trained on how to develop curiosity and imagination among students. Through project-based learning and case-based approach, this power can be developed.

From the above context, it can be stated that professional preparation programme for teachers are essential. The abilities and skills that are needed for students should be first developed among the teachers.

4.2.3 Planning Guidance for a Professional Development Programme

Most teachers, after getting selected through competitive examinations, are under the impression that they do not require any more training or professional preparation. In this situation, the executors of professional preparation programme has to think deeply about the kind of programme to formulate.

The first step of any professional development programme is to decide the planning process. In the initial stage of planning, the need for conducting such a programme will be analysed. This analysis will help to jot down the gaps between the existing knowledge and the knowledge to be acquired by the teachers. It also helps to identify the causes, including: (i) the gaps between teacher content knowledge/

instructional strategies and the desired student learning outcome, and (ii) impeding factors of learning in school and classrooms.

The learning needs of students reflect the lack of skills on the part of teachers. Thus, the identified professional knowledge and skills along with the specific professional learning outcomes should be identified in the later section of the plan.

After fixing the area of content for the programme, the next attempt is to fix the target group. A general complaint from the teachers is that 'it is a one-size-fits all' programme. Therefore, it is essential to think about the target group which would benefit from the programme.

At the same time, the planners should think about some specific professional learning activities, it makes sense to think about how these activities can be fitted to address the learning needs of teachers with different amount of professional knowledge and learning experience. When planning professional development programme to support a comprehensive reform such as curricular approaches towards inclusion education, Right to Education, and gender-sensitive techniques, it is reasonable that all teachers should benefit from the programme so the approaches should be incorporated in the course.

Another focus area is the learning activities and the follow-up that will be adopted in the programme. It is necessary that the planning team should consider: (i) the critical roles that the heads of an institution play in supporting teacher participation and engagement in professional development, and (ii) how the professional development being planned acts as a scaffold to other professional development in which the intended participants are involved.

The effectiveness of the professional development programmes are evaluated based on hands-on-experiences provided to the participants to learn and master new knowledge and skills. The most effective professional learning activities are those that include teachers as active participants and real problem-solvers. Not only in the context of professional development programme but also in the preparation of self-learning materials, the teachers should be able to apply the new knowledge and skill. The impact of individual professional programme is assessed in terms of its reinforcement to other professional development.

Evaluation

It is necessary to rethink about the evaluation procedures that are normally adopted in professional preparation. Evaluation is as important as inception of the programme. Kirkpatrick suggested four criteria to evaluate training programmes:

1. Reaction
2. Learning
3. Behaviour
4. Results

Each criterion is used to measure the different aspects of a training programme. Reaction measures how the trainees liked the programme in terms of content,

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methods, duration, trainers, facilities, and management. Learning measures the trainees' skills and knowledge which they were able to absorb at the time of training. Behaviour is concerned with the extent to which the trainees were able to apply their knowledge to real field situations. Results are concerned with the tangible impact of the training programme on individuals, their job environment, or the organization as a whole. After the conduction of professional development programme, the programme co-ordinators as well as participants have to ask questions to evaluate. Some of these are listed below:

1. How effective are these programmes?
2. Do these programmes meet the objectives?
3. Which areas need more discussion?
4. What solutions can be given to the present problems?
5. What type of plan of action can be taken in the future?

The evaluation phase consists of four levels touching various aspects such as participants' reaction, participants' learning, participants' use of new knowledge and skills and student learning outcomes.

Level 1: Participants' Reactions

The first level of evaluation looks at participants' reactions to the experiences they achieved by attending the programme. This is the most common form of professional development evaluations, and the easiest type of information to gather and analyse.

At Level 1, questions focusing on whether or not participants have liked the experience are addressed. Did they feel their time was well spent? Did the programme make sense to them? Were the activities relevant? Was the leader a resourceful person? Did the participants find the information useful?

Important questions for professional development workshops and seminars also include queries like 'Was the food item provided good and tasty?' 'Was the LCD projector operating in good condition?' 'Were the chairs comfortable?' To some, such questions may seem silly. Nevertheless, giving importance to hospitality is also important.

At the end of the session, information on participants' reactions is generally gathered by filling a questionnaire that includes a combination of rating-scale items and open-ended response questions that allow participants to make personal comments.

Level 2: Participants' Learning

In addition to liking their professional development experience, one also hopes that participants learn something from it. Level 2 focuses on measuring the knowledge and skills that participants gained. This can involve oral presentations, simulation, and journal writing. Effective learning is reflected when the participants are able to apply the learned skills in the classroom. You can also use oral personal reflections or portfolios that participants assemble to document their learning.

Although you can usually gather Level 2 evaluation information at the completion of a professional development activity, it requires more than a standardized form. Measures must show attainment of specific learning goals. This means that indicators of successful learning need to be outlined before activities begin. You can use this information as a basis for improving the content, format, and organization of the programme or activities.

Level 3: Participants' Use of New Knowledge and Skills

At Level 3, the pertinent question is whether the new knowledge and skills that participants learned make a difference in their professional practice? The answer to this question indicates both the degree and the quality of implementation. Unlike Levels 1 and 2, this information cannot be gathered at the end of a professional development session. As implementation is a gradual process, enough time must be allowed to the participants to adapt the new ideas and practices to their settings. In this level, the progress must be assessed at several time intervals.

You may gather this information through questionnaires or structured interviews with participants and their supervisors, oral or written personal reflections, or examination of participants' journals or portfolios. The most accurate information typically comes from direct observations, either with trained observers or by reviewing video-or audiotapes. You can analyse this information to help restructure future programmes and activities to facilitate better and more consistent implementation.

Level 4: Student Learning Outcomes

Level 4 addresses 'the bottom line'—What is the impact of this programme on the participants? Did it benefit them in any way? The particular student learning outcomes of interest depend, of course, on the goals of that specific professional development effort.

In addition to the stated goals, the activity may result in important unintended outcomes. For this reason, evaluations should always include multiple measures of student learning. Had information at Level 4 been restricted to the single measure of students' writing, this important unintended result might have gone unnoticed? Measures of student learning typically include cognitive indicators of student performance and achievement, such as portfolio evaluations, grades, and scores from standardized tests.

In addition, one may want to measure effective outcomes (attitudes and dispositions) and psychomotor outcomes (skills and behaviors). Level 4 information about a programme's overall impact can guide improvements in all aspects of professional development, including programme design, implementation, and follow-up.

4.2.4 Preparation of Teachers through Distance Mode

For about forty years, teacher education has been delivered through distance mode. For distance-delivered teacher education, the most significant policy-related impacts have come from policies relating to trained teachers and access to education for all.

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Taking into consideration the diversified target groups, the distance education programmes provide training and upgrade the skills of teachers. With the introduction of 'No Child Left Behind' policy, the demands for teachers are increasing; thereby, the need for professional preparation has been in constant demand for quality professionals in various sectors of profession.

The type of students opting for teacher education programme has changed from the young, full-time teachers to the old, part-time students. In this aspect, ODL has achieved in satisfying students who seek to maintain a balance between their desire to get a higher degree and meet the family commitments. In most of the developing countries, teaching is considered as a profession and for attaining this profession, acquiring a degree is essential.

Professional Preparation of Teachers through Distance Mode

Distance-delivered teacher education programmes must first prepare trainees to become a successful distance teacher educator. The term successful means there should be less attrition and drop-outs among distance teacher educators. For preparing teachers through distance mode the following measures can be taken:

- **Assess learner's readiness to participate in distance course:** Before entry into a distance teacher education programme, it is necessary to assess students' motivation, self-directed, technology knowledge and time management skills. These attributes of distance learners can be developed through online learning.
- **Offer a face-to-face orientation:** This phase provides opportunities for learners to clarify their doubts about the delivery of programme, practicals and evaluative mechanism. Such orientations have proved to be an effective strategy for completion of course by the learners.
- **Offer orientation in the distance mode in which trainees will participate:** Orientation can be held both synchronously and asynchronously using video, audio, chat and web-based platforms. Such opportunities will provide teachers to classify their doubts where they need help.
- **Organize learners into cohorts or a community:** Peer learning is possible through a number of online programmes such as web collaborative tools. Through these programmes, distance learners are able to share their ideas and get motivated to be online distance learners.
- **Help teachers develop self-study:** As distance education is free from time-bound and space-bound, there is a tendency among learners to extend their studies.
- **Educate potential learners and instructors about the spirit of distance learning:** The trainees must be educated that online learning requires high degree of individual and collaborative involvement. Without this type of collaboration, the teacher education programme will not be a success.
- **Offer blended learning opportunities:** Some aspects of teacher education programmes need closer interaction between teachers and students. For

example, in the case of micro-teaching. To apply new strategies in the classroom requires the presence of an actual tutor. For these reasons, tutoring and mentoring have greater chance in distance teacher education programme.

Feiman-Nissmer surveyed five conceptual orientations for teacher education. They are the following:

- Academic orientation
- Practical orientation
- Technological orientation
- Personal orientation
- Social orientation

- **The academic orientation**: This orientation emphasizes on transmitting knowledge and developing understanding. It emphasizes the subject-matter background of the teacher, and teaches how to think, inquire and structure the content.
- **The practical orientation**: This orientation focuses on the skills of teaching. It gives practical training in the classroom. It is commonly associated with various forms of apprenticeship systems of teacher education.
- **The technological orientation**: This orientation aims at training teachers to attain competency in teaching. For this, technologies are used to review their own teaching skills.
- **The personal orientation**: This orientation focuses on the teacher as a learner, and a teacher's personal development as the central part. It is a kind of self-assessment made by the teacher.
- **The social orientation**: In this orientation, the teacher is considered as a social engineer. Teachers are trained to remove inequalities in society and promote democratic values in the classroom. They also foster group problem solving among students. Though there are various types of orientation they share the same purpose, i.e., preparing teachers to change society.

4.2.5 Strategies for Professional Development

The professionalization of distance education is controversial. Scholars like Keegan and Peters hold that distance education can be seen as a professional field. Those who consider it as a mode of teaching opined that there is little difference between on-campus and off-campus teaching. A competent academic or trainer can teach at a distance.

When a teacher enters into teaching profession, the knowledge and skills that she/he has acquired serve as only minimal requirements for work. Besides studying from the daily experiences, she /he has to remain in touch with the latest development in the field of education. The subject teacher has mastery over the content but feels handicap in imparting that knowledge to the students. In order to overcome this difficulty, she/he can take the following measures:

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- Attend seminars, workshops, conferences
- Participate in exchange programmmes
- Publish and read articles in standard journals
- Abreast latest knowledge by reading books and articles
- Pursue higher qualification
- Visit nearby institutions to get familiar with the different methods of teaching

Besides the above-mentioned programmes, other strategies are also used to enhance the professional preparation/development of teachers. Let us have a look at each programme.

(i) Induction Programme for Novices

Transition from a pre-service teacher to an in-service teacher is a very challenging task. Though the pre-service teacher preparation programmes offer the basis of becoming a teacher, the actual classroom situation is new to them. Novices tend to have a limited knowledge base (about the subject, student, pedagogical procedure and classroom management). They have very general goals and are often chiefly concerned with students' personalities. Their planning tends to be inflexible, short-term and management focused. They mostly rely on direct instruction model.

Due to these limitations, they encounter some problems in the classroom. The following are the difficult areas faced by the novices:

- Large size classroom management
- Organizing activities
- Assessment procedures
- Dealing with individual differences
- Application of new strategies in classroom

The teachers from conventional system normally face the above mentioned difficulties. Whereas in the case of open and distance teacher educators, their problems are:

- Understanding the concept of open and distance education
- Self-learning preparation
- Assessment procedures
- Feedback from the tutors
- Limited support facilities

All novices might not be facing all these problems. Generally, the novices can probably be divided into three groups. There are, first of all, 'the naturals,' a small number of novices who function as experienced teachers. Because they have had excellent preparation programmes and possess the personal traits that make it easy for students to like them, they do not encounter major problems. Second, there are 'the losers', a small number of novices whose failures are deeply ingrained. They are weak teachers who will continue to have major problems even after a few years' experience.

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By far the largest number of novice teachers belongs to 'struggling beginners'. Their problems are developmental ones. Their problems exist due to lack of experiences. Even the best student teaching programmes cannot fully prepare novices for the realities of planning for teaching their own classes on a full-time schedule. They are not failing as teachers. Instead, they are experiencing stress that derives from having to master a very complex set of skills under quite difficult conditions.

In order to overcome the difficulties faced by the novices, adequate support must be provided to them. Here, support means an array of different types of infrastructure that help teachers to carry out their professional responsibilities. The support services are:

- Administrative support
- Instructional support
- Technical support
- Community support

Administrative support: It includes instructional leadership, official recognition, and compliance mentoring by principles. It gives support for implementation of innovation and administrative decisions that provide teachers time and resources to carry out new instructional practices.

Instructional support: This includes the support provided by the distance mentor with regard to content, instructional strategies, assessment procedures and the conceptual issues arising from change.

Technical support: This comprises of giving assistance in handling machines and to fix computers, LCDs.

Community support: It includes the recognition of a teacher's efforts in the classroom by parents. This mostly takes place during the parent teacher association. They may be useful in emphasizing to the public the importance of continuing staff development and training and in sharing with programme leaders insights they have gained in employee training.

Among all the support, the most important is providing teachers the needed teaching-learning materials. The most important support for teachers is in the form of personal assistance, i.e., helping a teacher to log on to the online course, provide time to plan a project.

(ii) Mentoring

The idea of mentoring is rooted deeply in Greek mythology (Homer, 1980). The term 'mentor' originally comes from Homer's epic poem *The Odyssey*. As a good friend, Mentor was asked by Odysseus to watch over his palace and his son when he left to fight in the Trojan War. In this position of responsibility, Mentor coached and counselled Telemachus, Odysseus' son, guiding him in his development from infancy to early-adulthood.

A mentor is defined as an influential, established, knowledgeable member of an organization who supports and commits to the upward mobility of a protégé's

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professional career (Mincemoyer & Thomson, 1998). Mentoring is a process in which a person is responsible for overseeing the career and development of another person. The mentor-student relationship develops over time and passes through various phases, namely the initiation phase, the working phase and the termination phase.

In the initiation phase, the mentor and the student get to know each other. They provide support to each other. For the protégé, mentoring is an opportunity to learn from someone with more experience and knowledge. The second phase of the relationship is called the working phase, in which the student gets benefit from the relationship. The student gradually becomes independent and starts taking responsibility and need help less frequently.

Due to this, the relationship enters into the final phase, i.e., the termination phase. This stage ends either positively or negatively. When it ends positively, supportive relationship will be retained. If it ends negatively, tension will exist between the mentor and the student.

The intensity of the coaching will vary with the novice's need and the mentor's time. The mentor should use the following coaching procedure:

1. He/she should provide a knowledge base for the skill. If, for example , the novice needs to know how to handle a group activity, he or she should have knowledge about the following issues:
   (a) Seating arrangement
   (b) Division of group
   (c) Nature of group
   (d) Activity distribution
   (e) Participation of all members in the group
   (f) Codification of each group points
   (g) Summarizing the final point

   The mentor should provide the knowledge before the coaching session takes place.
2. When the actual coaching session begins, skill should be explained in a step-by-step manner. Detailed explanations are necessary for skill mastery. Mostly the supervisors make only general suggestions. For example: 'You should start your class more efficiently'. Contrast that with the following specific explanation:
   - Do a quick check of attendance before starting the class
   - Conduct a brief review of previous day's learning
   - Start the class from the known to the unknown teaching points
3. She/he should demonstrate the skill step-by-step.
4. She/he should give room for practicing the skill.
5. She/he should provide constructive feedback.

6. Specific arrangements should be made for the novice to use the skill when the mentor can observe and give feedback.

Strong Mentoring through Web Technologies

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Mentoring is an important programme in supporting new teachers. In distance teacher education programmes, web technologies can be used for mentoring purpose. Mentoring can be used in various ways:

- Access to mentors from same field
- Access to multiple forms of mentoring
- Access to specialized mentor feedback
- Access to mentoring collaboration

Access to mentors from same field: In this type of mentoring, new teachers are able to work with experienced teachers in the same field. Through online professional development, the teachers are able to connect individuals from the same fields regardless of distance. More than that, they are able to do collaborative work in a learning community atmosphere.

Access to multiple forms of mentoring: Usually, mentoring refers to pairing of an experienced teacher with a new teacher and receiving guidance from her/him. However, in this form, the novices are able to connect not only with experts in their field, but also work with other new teachers in the same field who are experiencing the same problems. This is possible through discussion forums, video chat and e-mail.

Access to specialize mentor feedback: In this mentoring process, video examples are provided to beginning teachers to view at their own convenience. The web technologies provide opportunity for different types of communication between mentor and beginning teacher.

Access to mentoring collaboration: In mentoring collaboration, mentors at a distance are able to meet together and discuss the ways to assist beginning teachers. Thus it improves the mentoring techniques.

(iii) Micro-Peer Teaching (MPT)

As a beginning teacher or an experienced teacher, one way to improve teaching effectiveness is through periodic assessment of teaching performance. One of the most appropriate strategies is professional development through micro peer teaching (MPT). It is a skill-development strategy for professional development by both pre-service and in-service teachers. It helps to develop and improve specific teaching behaviours. For self-evaluation purpose, a teacher can use videotaped MPT. The evaluation is based on the following assumptions:

- Quality of preparation and implementation of a lesson
- Implementation of student involvement
- Attainment of instructional objectives
- Appropriateness of the cognitive level of the lesson

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(iv) Professional Portfolio

The concept of maintaining a professional portfolio is gaining its importance day-by-day. Portfolio is useful in job search as it can be shared with persons who are considering the applications for employment. It is an organized evidence of your skills. The word organized is used in the sense that the portfolio must be more than simply a collection of your achievements. It must be a deliberate, present and organized collection of your skills, attributes, accomplishments and experiences.

How to Organize a Teaching Portfolio

While reading about professional portfolio, you may think how to develop one. What items can be included in it? A teaching portfolio consists of a collection of information about a teacher's practice in educational institution. It can contain information such as daily plan, teacher's assignments and students' assignment, videotapes of teachers' instruction, models prepared by teachers and evaluator remarks of teachers by the heads of institution. The most important thing to be reflected in a portfolio is the written reflections by the teachers on their teaching experiences. It should be documented very properly and thoughtfully so that it will reflect the accomplishments attained over an extended period. In addition, it is an ongoing process carried on in the company of mentors and colleagues.

Table 4.1 *Format of Items in a Portfolio*

1. Preliminary Information
õ Résumé
õ Preliminary Information on Teacher and Teaching Situation
õ Educational Philosophy and Teaching Goals
2. Documentation on Teaching Activity
õ Overview of Unit Goals and Instructional Plan
õ List of Resources Used in Unit
õ Two Consecutive Lesson Plans
õ Videotape of Teaching
õ Evidence of your language and communication skills
õ Evidence of teaching skills
õ Work samples of Students
õ Assessment of Student Work
õ Observations by the teacher
õ Additional Units/Lessons/Student Work as Appropriate
3. Professional Achievements
õ List of Professional Activities
õ Letters of Recommendation
õ Voluntary Activities
õ Personal Interests

Need to Develop a Portfolio

There are numerous reasons for a teacher to develop a portfolio. Teacher trainees develop portfolios to demonstrate their achievements and later on, the same can be used for job interviews whereas in-service teachers construct portfolio for showing

their excellence and advanced certification. In some cases, portfolios are developed to be on professional licenses.

Uses of Portfolios

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The benefits of portfolio preparation are as follows:

- Facilitates the total personality of the teacher
- Reveals the development of the teacher
- Highlights the achievements of the teacher
- Shows the area of improvement by the teacher
- Increases the responsibility of the teachers to achieve their professional goals

(v) Professional Development through Use of Technology

In technology-mediated teaching-learning process, the easiest available tool is the computer. There are many advantages of using computer as an observational tool. They are as follows:

(a) It is an efficient tool for note-taking.

(b) By using software, the data can be analysed in various perspectives.

(c) It provides a complete documented record for the teachers.

Videotapes are best to use for analysis purpose. The valuable experiences that one gets from the feedback by using videotapes are listed below:

- It is possible to analyse one's own teaching while observing the tape.
- They create a valuable record of reading.
- As the peers are observing the tapes, it is possible to solve instructional problems.
- Video analysis facilitates the coaching process.

The following guidelines will clarify the point of how to make videotapes:

- Select a class that will be responsive and not disruptive.
- Set the camera in the proper place where it will not disturb children. Explain the purpose of taping and invite their co-operation.
- Get ready with the equipment and the personnel. The personnel can be a trained student or an aide for assistance. Based on the information needed, the camera can be focussed either towards student's interaction session or towards the teacher.
- Make several tapes so that it will be possible to select the tape that best suits the purpose. There should be back up tapes if some tapes are damaged. If several tapes have to made, base it on the same unit, one each from the beginning, middle and the end of the unit.
- Analyse the tape. Training should be given for analysing the tape. For this, three steps should be followed. The process starts by viewing the tape several times. For observation, purpose they can adopt two perspectives—(i) broad

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perspective, and (ii) focussed one. If teachers are adopting broad perspective, they will observe the class in general and make their own observation notes in the following format:

Table 4.2 *Format for Broad Perspective*

Videotape: Running Record		
Tape Counter	**Teacher Actions**	**Student Actions**
45	Checking Group Activity	Only two students are contributing

(***Source:*** Glatthorn, Allan A. & Fox, Linda E.(1924).

As teachers want changes in their own or student's behaviour, they should make notes of the tape counter, their actions and students' actions. If teachers are interested in focused perspective in order to know a specific skill, they should use specially prepared forms. One format is given below:

Table 4.3 *Evaluation Structures and Teacher Groups*

Teachers	Intensive	Standard	Evaluation for development
Novice type	Yes	No	No
Marginal type	Yes	Yes	No
Passive type	Maybe	Maybe	Maybe
Productive type	No	Maybe	Maybe

(***Source:*** Glatthorn, Allan A. & Fox, Linda E.(1924).

After finishing the framing of either type of record, teachers can write a few observations regarding their own reactions while seeing the tape like:

> I felt my introduction was too long. Can start another teaching point from students' answer; I have to learn how to conduct the group work in a disciplined manner.

Next, the turn of observation of the videotape starts with the teacher along with his/her colleague or mentor. Some general background information with regard to the class, the place of lesson in that unit and objectives of the lesson can be given. The teacher should tell about the purpose of the tape viewing and the type of desired feedback. Three kinds of feedback are normally suggested:

- Feedback based on the particular skill used by the teacher
- Questions that will help teachers reflect about important interactions
- Opinion of the colleagues about which part of the tape should be pasted in the portfolio that the teacher is preparing

4.2.6 Challenges of Teacher Education in General

There can be seen a huge discrepancy in the educational field between developing and developed countries of the world. Though the developing countries have made much progress but still, the difference will limit the global competitiveness of the

underdeveloped world. The underdeveloped countries are facing various obstacles in the field of teacher education. These are:

- Inadequate access to education. Some countries also face economic, cultural, and political obstacles specifically to women's access to education.
- Disproportionate student/teacher ratio in primary and secondary education in comparison to developed countries. The effect of this disparity can be seen in the rural areas the most.
- Teacher quality is not good especially in those countries that have limited access to education. Teachers in these countries are mostly untrained or under-qualified or teach subjects in which they are neither qualified nor trained for.
- Lack of attention given to teacher training or teacher education by the government in comparison to other educational courses though the importance of teachers is emphasized in many international reports.
- There is a shortage of good research in the field of teacher education that could help to improve teacher education.

Though the need to integrate training, education and professional development has been felt for lifelong learning for the teachers but, the resources allocated are usually inadequate and opportunities few. On an average, countries spend a meager one per cent in teacher training and education from the total annual education expenditure (six per cent for staff development in the field of industry and business). Priority and attention should be given to teacher training and education to facilitate development of human capital worldwide.

CHECK YOUR PROGRESS

1. What is meant by 'learning process'?
2. Name the professions which come under he historical perspective of a profession.
3. What is meant by the term agility?

4.3 PROFESSIONAL ORGANIZATIONS FOR VARIOUS LEVELS AND THEIR ROLES

There are various professional organizations for teacher education in India. In this section, we will identify such organizations at various levels and discuss their roles.

4.3.1 Professional Organizations at School Level

Several professional organizations in the field of teacher education function in India at school level. Some of these are given in this section.

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1. Central Board of Secondary Education (CBSE)

A trail of developments mark the significant changes that took place over the years in shaping up the Board to its present status. UP Board of High School and Intermediate Education was the first Board set up in 1921. It has under its jurisdiction Rajputana, Central India and Gwalior. In response to the representation made by the Government of United Provinces, the then Government of India suggested to set up a joint Board in 1929 for all the areas which was named as the 'Board of High School and Intermediate Education, Rajputana'. This included Ajmer, Merwara, Central India, and Gwalior.

The Board witnessed rapid growth and expansion at the level of Secondary education resulting in improved quality and standard of education in institutions. But with the advent of State Universities and State Boards in various parts of the country the jurisdiction of the Board was confined only to Ajmer, Bhopal and Vindhya Pradesh later. As a result of this, in 1952, the constitution of the Board was amended wherein its jurisdiction was extended to part-C and part-D territories and the Board was given its present name 'Central Board of Secondary Education'.

Finally, it was in the year 1962 that the Board was reconstituted. The main objectives were to serve the educational institutions more effectively, to be responsive to the educational needs of those students whose parents were employed in the Central Government and had frequently transferable jobs.

2. Central Institute of Education Technology (CIET)

Central Institute of Educational Technology (CIET), a constituent unit of NCERT, came into existence in the year 1984 with the merger of Center for Educational Technology and Department of Teaching Aids. CIET is a premiere national institute of educational technology. Its major aim is to promote utilization of educational technologies viz. radio, television, films, satellite communications and cyber media either separately or in combinations. The institute undertakes activities to widen educational opportunities, promote equity and improve quality of educational processes at school level.

As a premier institute of Educational Technology at the apex level, major functions of the CIET are:

- To design, develop, try out and disseminate alternative learning systems to achieve the national goal of universalisation of elementary education
- To address various educational problems at micro, meso and macro levels

The areas of activities of the CIET are as given below:

- To design and produce media software materials, viz., television/radio (for both broadcast as well as non-broadcast use), graphics and other programmes for strengthening the transaction of curricular and co-curricular activities at the school level

- To create competencies in development and use of educational software materials mentioned above through training in areas such as script development, media production, media communication, media research, technical operations, setting up studios, repair and maintenance of equipment
- To develop plans for the use of Information and Communication Technologies (ICTs) in education
- To train the faculty of Institutes of Advanced Study in Education/Colleges of Teacher Education and District Institutes of Education and Training in the use of Educational Technology in their teacher education programmes
- To undertake research, evaluation and monitoring of the systems, programmes and materials with a view to improving the materials and increasing their effectiveness
- To document and disseminate information, materials and media programmes for better utilization and to function as a clearing house/ agency in the field of Educational Technology
- To advise and coordinate the academic and technical programmes and activities of the State Institutes of Educational Technology (SIETs) set up by the MHRD in five states of India.

Some of the major functions of CIET are:

- Design, develop and disseminate alternative learning systems
- Promote educational technology
- Train Personnel in Educational Technology
- Advise and co-ordinate activities of SIETs
- Provide Consultancy and media support to other constituents of NCERT

3. Central Tibetan School Administration (CTSA)

Central Tibetan Schools administration is an autonomous organization under Ministry of Human Resource Development, Government of India established in 1961 with the objective to establish, manage and assist schools in India for the education of Tibetan Children living in India while preserving and promoting their culture and heritage.

The administration is running seventy-one schools spread all over India in the area of concentration of Tibetan population. About 10,000 students are on roll from pre-primary to class XII with 554 Teaching and 239 sanctioned Non Teaching Staff. The schools are affiliated to CBSE and follow NCERT curriculum.

The medium of instruction at Primary level is Tibetan and thereafter English. The classes and labs are well equipped and all efforts are made for overall development of children by giving them opportunities of participating in various co-curricular activities, viz., sports/cultural/art and adventure activities.

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4. Kendriya Vidyalaya Sangathan (KVS)

Objectives of KVS are:

- To cater to the educational needs of the children of transferable Central Government employees including defense and para-military personnel by providing a common programme of education
- To pursue excellence and set pace in the field of school education
- To initiate and promote experimentation and innovativeness in education in collaboration with other bodies like the Central Board of Secondary Education and National Council of Educational Research and Training
- To develop the spirit of national integration and create a sense of 'Indianness' among children
- To provide, establish, endow, maintain, control and manage schools, hereinafter called the 'Kendriya Vidyalaya' for the children of transferable employees of the Government of India, floating populations and others including those living in remote and undeveloped locations of the country and to do all acts and things necessary for the conducive to the promotions of such schools

5. National Bal Bhawan

National Bal Bhavan is an institution which aims at enhancing the creative potential of children by providing them various activities, opportunities and common platform to interact, experiment, create and perform according to their age, aptitude and ability. It offers a barrier-free environment with immense possibilities of innovation, minus any stress or strain.

The Founder Father of National Bal Bhavan Jawaharlal Nehru felt that the Bal Bhavan movement is the best national option to ensure this. He felt that the formal education system left little scope for the overall development of the child's personality. He envisioned National Bal Bhavan as a place which would fill this gap. Since 1956, Bal Bhavan have brought in children across gender class caste divides to nurture their curiosity and imagination, helping them to enjoy childhood and learn joyfully. The Bal Bhavan movement today continues to help children become future creative thinkers, designers, scientists, leaders, compassionate and responsible citizens who contribute to the society.

National Bal Bhavan has multidimensional role to play such as:

(i) It provides a prototype children institute for free learning experiences. For this, it follows the following functions:

- Supplement schools system by providing children with free environment conductive to creative expression and activity
- Helps in preparing children for vocational streams
- Provides opportunities to children to realize their hidden potential
- Provides opportunities to researchers in areas of creativity

- Identifies creative talent and honours them through 'The Bal Shree Scheme' in the fields of Creative Arts, Creative Performance, Creative Writing and Creative Scientific Innovation
- Creates awareness through mass activities involving children and community on various issues and themes
- Acts as an effective non-formal learning centre where philosophy of learning by doing and play way methods are adopted

(ii) It acts as a creative resource centre. Under this function, the following roles are observed by National Bal Bhavan:

- Provides training facility for creative education
- Offers guidelines and learning facilities for teachers and teacher trainers for integrated learning of children
- Helps in developing creative teaching techniques and educational kits in Arts, Science and museum techniques

(iii) It acts as an apex body. Under this, the following functions are followed:

- Works as a nodal agency for all affiliated Bal Bhavans
- Provides guidelines, and support, know-how to affiliated State Bal Bhavan and desiring educational institutions
- Helps in establishing new Bal Bhavans
- Coordinates with affiliated Bal Bhavans in organizing national level workshops, seminars and conferences
- Provides financial assistance to affiliated State Bal Bhavans for specific projects like developing science corners, science parks, astronomical units, museum corners, computer labs, and adventure parks
- Provides opportunities to participate in national level programs to children of all affiliated Bal Bhavans

6. National Council for Educational Research and Training (NCERT)

The National Council of Educational Research and Training (NCERT) is an autonomous organization set up in 1961 by the Government of India to assist and advise the Central and State Governments on policies and programmes for qualitative improvement in school education.

The major objectives of NCERT and its constituent units are to: undertake, promote and coordinate research in areas related to school education; prepare and publish model textbooks, supplementary material, newsletters, journals and develops educational kits, multimedia digital materials organize pre-service and in-service training of teachers; develop and disseminate innovative educational techniques and practices;collaborate and network with state educational departments, universities, NGOs and other educational institutions; act as a clearing house for ideas and information in matters related to school education; and act as a nodal agency for achieving the goals of Universalization of Elementary Education.

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In addition to research, development, training, extension, publication and dissemination activities, NCERT is an implementation agency for bilateral cultural exchange programmes with other countries in the field of school education. The NCERT also interacts and works in collaboration with the international organizations, visiting foreign delegations and offers various training facilities to educational personnel from developing countries.

7. National Institute of Open Schooling (NIOS)

The National Institute of Open Schooling (NIOS) formerly known as National Open School (NOS) was established in November,1989 as an autonomous organisation in pursuance of National Policy on Education 1986 by the Ministry of Human Resource Development (MHRD), Government of India. NIOS is providing a number of Vocational, Life Enrichment and community oriented courses besides General and Academic Courses at Secondary and Senior Secondary level. It also offers Elementary level Courses through its Open Basic Education Programmes (OBE). Government of India through a gazette notification vested NIOS with the authority to examine and certify learners registered with it up to pre-degree level courses whether academic, technical or vocational.

Consequently, the Ministry of Human Resource Development (MHRD), Government of India set up the National Open School (NOS) in November 1989. The pilot project of CBSE on Open School was amalgamated with NOS. Through a resolution, the National Open School (NOS) was vested with the authority to register, examine and certify students registered with it up to pre-degree level courses.

In July 2002, the Ministry of Human Resource Development amended the nomenclature of the organization from the National Open School (NOS) to the National Institute of Open Schooling (NIOS) with a mission to provide relevant continuing education at school stage, up to pre-degree level through Open Learning system to prioritized client groups as an alternative to formal system, in pursuance of the normative national policy documents and in response to the need assessments of the people, and through it to make its share of contribution:

- To universalization of education
- To greater equity and justice in society
- To the evolution of a learning society

The National Institute of Open Schooling (NIOS) provides opportunities to interested learners by making available the following Courses/Programmes of Study through open and distance learning (ODL) mode.

- Open Basic Education (OBE) programme for fourteen-plus years age group, adolescents and adults at A, B and C levels that are equivalent to classes III, V and VIII of the formal school system
- Secondary education course
- Senior secondary education course
- Vocational education courses/programmes
- Life enrichment programmes

8. Navodaya Vidyalaya Samiti (NVS)

Navodaya Vidyalaya Samiti System is a unique experiment unparalleled in the annals of school education in India and elsewhere. Its significance lies in the selection of talented rural children as the target group and the attempt to provide them with quality education comparable to the best in a residential school system. Such children are found in all sections of society, and in all areas including the most backward.

But, so far, good quality education has been available only to well-to-do sections of society, and the poor have been left out. It was felt that children with special talent or aptitude should be provided opportunities to proceed at a faster pace, by making good quality education available to them, irrespective of their capacity to pay for it. These talented children otherwise would have been deprived of quality modern education traditionally available only in the urban areas.

Such education would enable students from rural areas to compete with their urban counterparts on an equal footing. The National Policy on Education, 1986 envisaged the setting up of residential schools, to be called Jawahar Navodaya Vidyalayas that would bring out the best of rural talent.

9. National Council for Teacher Education (NCTE)

The National Council for Teacher Education, in its previous status since 1973, was an advisory body for the Central and State Governments on all matters pertaining to teacher education, with its Secretariat in the Department of Teacher Education of the National Council of Educational Research and Training (NCERT).

Despite its commendable work in the academic fields, it could not perform essential regulatory functions, to ensure maintenance of standards in teacher education and preventing proliferation of substandard teacher education institutions.

The National Policy on Education (NPE), 1986 and the Programme of Action thereunder, envisaged a National Council for Teacher Education with statutory status and necessary resources as a first step for overhauling the system of teacher education. The National Council for Teacher Education as a statutory body came into existence on the 17 August 1995.

It shall be the duty of the Council to take all such steps as it may think fit for ensuring planned and co-ordinated development of teacher education and for the determination and maintenance of standards for teacher education and for the purposes of performing its functions under this Act, the Council may:

- Undertake surveys and studies relating to various aspects of teacher education and publish the result thereof
- Make recommendations to the Central and State Government, Universities, University Grants Commission and recognised institutions in the matter of preparation of suitable plans and programmes in the field of teacher education
- Co-ordinate and monitor teacher education and its development in the country

- Lay down guidelines in respect of minimum qualifications for a person to be employed as a teacher in schools or in recognised institutions
- Lay down norms for any specified category of courses or trainings in teacher education, including the minimum eligibility criteria for admission thereof, and the method of selection of candidates, duration of the course, course contents and mode of curriculum
- Lay down guidelines for compliance by recognised institutions, for starting new courses or training, and for providing physical and instructional facilities, staffing pattern and staff qualification
- Lay down standards in respect of examinations leading to teacher education qualifications, criteria for admission to such examinations and schemes of courses or training
- Lay down guidelines regarding tuition fees and other fees chargeable by recognized institutions
- Promote and conduct innovation and research in various areas of teacher education and disseminate the results thereof
- Examine and review periodically the implementation of the norms, guidelines and standards laid down by the Council, and to suitably advise the recognized institution
- Evolve suitable performance appraisal system, norms and mechanism for enforcing accountability on recognised institutions
- Formulate schemes for various levels of teacher education and identify recognised institutions and set up new institutions for teacher development programmes
- Take all necessary steps to prevent commercialisation of teacher education
- Perform such other functions as may be entrusted to it by the Central Government

4.3.2 Professional Organizations at Higher Education Level

Several professional organizations in the field of teacher education function in India at higher education level. Some of these are given below:

1. All India Council of Technical Education (AICTE)

All India Council for Technical Education (AICTE) was set-up in November 1945 as a national level Apex Advisory Body to conduct survey on the facilities on technical education and to promote development in the country in a coordinated and integrated manner. And to ensure the same, as stipulated in the National Policy of Education (1986), AICTE be vested with statutory authority for planning, formulation and maintenance of norms and standards, quality assurance through accreditation, funding in priority areas, monitoring and evaluation, maintaining parity of certification and awards and ensuring coordinated and integrated development and management of technical education in the country.

The Government of India (Ministry of Human Resource Development) also constituted a National Working Group to look into the role of AICTE in the context of proliferation of technical institutions, maintenance of standards and other related matters. The Working Group recommended that AICTE be vested with the necessary statutory authority for making it more effective, which would consequently require restructuring and strengthening with necessary infrastructure and operating mechanisms.

Pursuant to the above recommendations of the National Working Group, the AICTE Bill was introduced in both the Houses of Parliament and passed as the AICTE Act No. 52 of 1987. The Act came into force w.e.f. 28 March 1988. The statutory All India Council for Technical Education was established on 12 May 1988 with a view to proper planning and coordinated development of technical education system throughout the country, the promotion of qualitative improvement of such education in relation to planned quantitative growth and the regulation and proper maintenance of norms and standards in the technical education system and for matters connected therewith.

The purview of AICTE (the Council) covers programmes of technical education including training and research in Engineering, Technology, Architecture, Town Planning, Management, Pharmacy, Applied Arts and Crafts, Hotel Management and Catering Technology at different levels.

2. Council of Architecture (COA)

The Council of Architecture (COA) has been constituted by the Government of India under the provisions of the Architects Act, 1972, enacted by the Parliament of India, which came into force on 1 September 1972. The Act provides for registration of Architects, standards of education, recognized qualifications and standards of practice to be complied with by the practicing architects.

The Council of Architecture is charged with the responsibility to regulate the education and practice of profession throughout India besides maintaining the register of architects. For this purpose, the Government of India has framed Rules and Council of Architecture has framed Regulations as provided for in the Architects Act, with the approval of Government of India.

Any person desirous of carrying on the profession of 'Architect' must have registered himself with Council of Architecture. For the purpose of registration, one must possess the requisite qualification as appended to the Architects Act, after having undergone the education in accordance with the Council of Architecture (Minimum Standards of Architectural Education) Regulations 1983. The registration with Council of Architecture entitles a person to practice the profession of architecture, provided he holds a Certificate of Registration with up-to-date renewals. The registration also entitles a person to use the title and style of Architect.

The title and style of architect can also be used by a firm of architects, of which all partners are registered with COA. Limited Companies, Private/Public Companies, societies and other juridical persons are not entitled to use the title and style of architect nor are they entitled to practice the profession of architecture.

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If any person falsely claims to be registered or misuses title and style of architect, such acts tantamount to committing of a criminal offense, which is punishable under Section 36 or 37 (2) of the Architects Act 1972.

The practice of profession of an architect is governed by the Architects (Professional Conduct) Regulations, 1989 (as amended in 2003), which deals with professional ethics and etiquette, conditions of engagement and scale of charges, architectural competition guidelines etc. Pursuant to these Regulations, the Council of Architecture has framed guidelines governing the various aspects of practice. An architect is required to observe professional conduct as stipulated in the Regulations of 1989 and any violation thereof shall constitute a professional misconduct, which will attract disciplinary action as stipulated under section 30 of the Architects Act, 1972.

There are about 423 institutions, which impart architectural education in India leading to recognized qualifications. The standards of education being imparted in these institutions (constituent colleges/departments of universities, deemed universities, affiliated colleges/schools, IITs, NITs and autonomous institutions) is governed by Council of Architecture (Minimum Standards of Architectural Education) Regulations, 1983, which set forth the requirement of eligibility for admission, course duration, standards of staff and accommodation, course content, examination. These standards as provided in the said Regulations are required to be maintained by the institutions. The COA oversees the maintenance of the standards periodically by way of conducting inspections through Committees of Experts. The COA is required to keep the Central Government informed of the standards being maintained by the institutions and is empowered to make recommendations to the Government of India with regard to recognition and de-recognition of a qualification.

3. Indian Council of Historical Research (ICHR)

Indian Council of Historical Research is an autonomous organization which was established under Societies Registration Act (Act XXI of 1860) in 1972. The objectives of the Indian Council of Historical Research (hereafter referred to as the 'Council') as laid down in the Memorandum of Association are as follows:

- To bring historians together and provide a forum for exchange of views between them
- To give a national direction to an objective and scientific writing of history and to have rational presentation and interpretation of history
- To promote, accelerate and coordinate research in history with special emphasis on areas which have not received adequate attention so far
- To promote and coordinated a balanced distribution of research effort over different areas
- To elicit support and recognition for historical research from all concerned and ensure the necessary dissemination and use of results

In pursuance of these objectives:

(a) The Council provides fellowships and financial assistance to the young teachers in colleges, universities and registered research organizations, as well as to senior scholars who might need financial support

(b) Brings historians together by providing financial assistance for holding symposia, seminars, workshops for exchanging views related to history

(c) Provides publication subsidy to the seminars, congress proceedings and journals so that these publications may reach to researchers and scholars

(d) Publishes a biannual Journal, the Indian Historical Review, and another journal *Itihas* in Hindi

(e) Maintains a large and expanding library-cum-documentation centre exclusively for researchers and scholars

(f) Maintains two regional centres namely ICHR North-East Regional Centre (Guwahati) and ICHR Southern Regional Centre (Bangalore), which provide assistance to researchers / scholars

(g) Takes such other measures as the Council considers appropriate in order to implement the stated objectives of the Indian Council of Historical Research

4. Indian Council of Philosophical Research (ICPR)

The Indian Council of Philosophical Research has undertaken quite a few activities. Some of these activities are given below:

- Awards various kinds of fellowships to scholars
- Organizes seminars in many different areas of philosophy and related disciplines in all parts of the country
- Organizes lectures by eminent Indian and foreign scholars every year in different parts of country
- Awards travel grants to scholars to attend seminars, symposia and conferences abroad
- Organizes an annual essay competition among young scholars (in the age group of twenty to twenty-five years) to encourage them to think critically and philosophically on the issues facing our country
- Conducts an exchange programme between India and foreign countries for the exchange of views between philosophers in India and other countries
- Publishes important philosophical works by scholars and fellows of the council
- Publishes critical editions with commentary, embodying creative interpretation of classical Indian texts by scholars
- Publishes tri-annually a journal which contains valuable papers in the field of philosophy and related disciplines by scholars from India and abroad

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The main objects of the Council briefly are to establish, administer and manage the Indian Council of Philosophical Research, whose main functions are:

- To review the progress of research in philosophy from time to time
- To co-ordinate research activities in philosophy and to encourage programmes of interdisciplinary research
- To promote collaboration in research between Indian philosophers and philosophical institutions and those from other countries
- To promote teaching and research in philosophy
- To sponsor or assist projects or programmes of research in philosophy
- To give financial support to institutions and organizations engaged in the conduct of research on philosophy
- To provide technical assistance or guidance for the formulation of research projects and programmes in philosophy, by individuals or institutions and/or organize and support institutional or other arrangements for training in research methodology
- To indicate periodically areas and topics on which research in philosophy should be promoted and to adopt special measures for the development of research in neglected or developing areas in philosophy
- To organize, sponsor and assist seminars, special courses, study circles, working groups/parties and conferences for promoting research in philosophy and to establish institutes for the same purpose
- To give grants for publications of digests, journals, periodicals and scholarly works devoted to research in philosophy and also to undertake their publications
- To institute and administer fellowships, scholarships and awards for research in philosophy by students, teachers and others
- To develop and support documentation services, including maintenance and supply of data, preparation of an inventory of current research in philosophy and compilation of a national register of philosophers
- To take special steps to develop a group of talented young philosophers and to encourage research by young philosophers working in universities and other institutions
- To advise the Government of India on all such matters pertaining to teaching and research in philosophy as may be referred to it by the Government of India from time to time
- To enter into collaboration on mutually agreed terms, with other institutions, organizations and agencies for the promotion of research in philosophy
- Generally to take all such measures as may be found necessary from time to time to promote research in philosophy
- To create academic, technical, ministerial and other posts in the council and to make appointments thereto in accordance with the provisions of the rules and regulations

In pursuance of these and similar considerations, the council formulated certain initial lines of research. Some priority areas for research were also conceived, particularly the following:

- Varieties of abiding experience and their relevance to philosophy
- Theories of truth and knowledge
- Basic values embodied in Indian culture and their relevance to national rebuilding
- Normative inquiries
- Philosophy, science and technology
- Interdisciplinary inquiries with philosophy as focal discipline
- Philosophy of man and environment
- Social and political philosophy and philosophy of law
- Logic, philosophy of mathematics and philosophy of language
- Metaphysics
- Comparative and critical studies in philosophical systems or movements and religions
- Philosophy of education

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5. Indian Council of Social Science Research (ICSSR)

Indian Council of Social Science Research (ICSSR) was established in the year of 1969 by the Government of India to promote research in social sciences in the country. The Council was meant to:

- Review the progress of social science research and give advice to its users
- Sponsor social science research programmes and projects and administer grants to institutions and individuals for research in social sciences
- Institute and administer scholarships and fellowships for research in social sciences
- Indicate areas in which social science research is to be promoted and adopt special measures for development of research in neglected or new areas
- Give financial support to institutions, associations, and journals engaged in social science research
- Arrange for technical training in research methodology and to provide guidance for research
- Co-ordinate research activities and encourage progrmmes for interdisciplinary research
- Develop and support centers for documentation services and supply of data; for documentation services and supply of data
- Organize, sponsor, and finance seminars, workshops and study groups

- Undertake publication and assist publication of journals and books in social sciences
- Advise the Government of India on all matters pertaining to social science research as may be referred to it from time to time

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6. University Grants Commission (UGC)

The first attempt to formulate a national system of education in India came In 1944, with the Report of the Central Advisory Board of Education on post-war educational development in India, also known as the Sargent Report. It recommended the formation of a University Grants Committee, which was formed in 1945 to oversee the work of the three Central Universities of Aligarh, Banarasand, Delhi. In 1947, the Committee was entrusted with the responsibility of dealing with all the then existing Universities.

Soon after Independence, the University Education Commission was set up in 1948 under the Chairmanship of Dr. S. Radhakrishnan 'to report on Indian university education and suggest improvements and extensions that might be desirable to suit the present and future needs and aspirations of the country'. It recommended that the University Grants Committee be reconstituted on the general model of the University Grants Commission of the United Kingdom with a full-time Chairman and other members to be appointed from amongst educationists of repute.

In 1952, the Union Government decided that all cases pertaining to the allocation of grants-in-aid from public funds to the Central Universities and other Universities and Institutions of higher learning might be referred to the University Grants Commission. Consequently, the University Grants Commission (UGC) was formally inaugurated by late Shri Maulana Abul Kalam Azad, the then Minister of Education, natural resources and scientific research on 28 December 1953.

The UGC, however, was formally established only in November 1956 as a statutory body of the Government of India through an Act of Parliament for the coordination, determination and maintenance of standards of university education in India. In order to ensure effective region-wise coverage throughout the country, the UGC has decentralized its operations by setting up six regional centres at Pune, Hyderabad, Kolkata, Bhopal, Guwahati and Bangalore. The head office of the UGC is located at Bahadur Shah Zafar Marg in New Delhi, with two additional bureaus operating from thirty-five, Feroze Shah Road and the South Campus of University of Delhi as well.

CHECK YOUR PROGRESS

4. List some of the professional organizations in the field of teacher education at school level in India.
5. When was the National Council of Educational Research and Training (NCERT) set up in India?
6. Why is the Navodaya Vidyalaya System considered significant?

4.4 PERFORMANCE APPRAISAL OF TEACHERS

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The framework for evaluation of education in schools and for appraisal and feedback of teachers are key concerns when it comes to performance appraisal. Evaluation can play a key role in school improvement and teacher development. Identifying strengths and weaknesses, making informed resource allocation decisions, and motivating actors to improve performance can help achieve policy objectives such as school improvement, school accountability and school choice.

Data were collected from school principals and teachers on these and related issues, including the recognition and rewards that teachers receive. Analysis of the data has produced a number of important findings for all stakeholders. Data from teachers and school principals show that school evaluations can affect the nature and form of teacher appraisal and feedback which can, in turn, affect what teachers do in the classroom.

An opportunity, therefore, exists for policy makers and administrators to shape the framework of evaluation to raise performance and to target specific areas of school education. In particular, several tests and data indicate that opportunities exist to better address teachers' needs for improving their teaching in the areas of teaching students with special learning needs and teaching in a multicultural setting.

In addition, teachers report that the current framework for evaluation lacks the necessary support and incentives for their development and that of the education they provide to students. They report few rewards for improvements or innovations and indicate that in their school, the most effective teachers do not receive the greatest recognition. Opportunities to strengthen the framework for evaluating school education in order to reap the benefits of evaluation therefore appear to exist in most, if not all, education systems.

Teachers report that the appraisal and feedback they receive is beneficial, fair and helpful for their development as teachers.This provides further impetus to strengthen and better structure both school evaluations and teacher appraisal and feedback.

4.4.1 Frequency of Appraisal and Feedback

Frequency of teachers' appraisal and feedback is a starting point for analysis of these issues. It provides a measure of the extent to which this plays a role in teachers' development and in communication among colleagues within schools.

It may also provide an indication of the extent to which teachers' co-operation and collective responsibility for students' education are present in schools. Importantly, it identifies teachers who received no appraisal or feedback about their work as teachers. Insofar as appraisal and feedback are considered beneficial for teachers and the education students receive, this is an important indicator for understanding more about teachers' careers, their development and ways to raise school effectiveness.

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4.4.2 Focus of Appraisal and Feedback

Policy makers and administrators attempting to shape and develop the evaluation of school education would naturally consider the focus of teacher appraisal and feedback important in terms of providing incentives and shaping teachers' actions within schools. Information for this can be obtained from teachers on the importance of seventeen items in the appraisal and feedback they had received at their school.

These are the same as those discussed for school evaluations and include various student performance measures; feedback from parents and students; teaching practices and requirements; teachers' knowledge and understanding of their main subject field and instructional practices; relations with students; findings from direct appraisals of classroom teaching; professional development; and, teachers' handling of student discipline and behaviour problems.

Given the relatively even spread across countries in the importance given to each item, it is interesting to again analyse differences within countries. Therefore, the discussion below focuses on differences within each country so that a high focus on particular criteria in, for example, Austria is discussed relative to the importance placed on other items in Austria rather than on its importance in other countries. This also helps take into account national differences in the social desirability of responses.

Given the importance of these aspects of school education, it is not surprising that most were considered to be of fairly high importance. The areas considered by most teachers to be of moderate or high importance were relations between teachers and students, knowledge and understanding of instructional practices, classroom management, and knowledge and understanding of teachers' main instructional fields (approximately eighty per cent on average for each of these items across countries).

In comparison, substantially fewer teachers reported that teaching students with special needs, the retention and pass rates of students and teaching in a multicultural setting were of moderate or high importance in their appraisal and feedback. Yet, even with their comparably lower rating (fifty-seven, fifty-six and forty-five per cent, respectively), a number of teachers participating in appraisal and feedback still reported that these had moderate or high importance in the appraisal and feedback they received.

Countries vary substantially in the emphasis on student outcomes in teachers' appraisal and feedback. Three aspects were considered: student test scores; students' retention and pass rates; and other student learning outcomes.

On average, across several countries, the retention and pass rates of students was the second lowest rated criteria in teacher appraisal and feedback and was the lowest rated criteria in Austria and Italy. Student test scores were also not given a high priority in teacher appraisal and feedback in a number of countries. It was one of the three lowest rated criteria in Denmark, Hungary and Italy. There are often substantial differences in the importance placed upon these three measures of student outcomes within countries, for example, in Denmark student test scores and the retention and pass rates of students were considered to be of moderate or high

importance by just over one-quarter of teachers but other student learning outcomes were of considerably more importance to teacher appraisal and feedback with just fewer than half of Danish teachers reporting it to be of moderate or high importance.

Feedback from stakeholders (e.g., students and parents) can be useful for teachers and for those responsible for appraising teachers but was rated relatively lowly on average across countries. Student feedback on the education they receive was the second highest rated criteria in Iceland and Portugal but was the lowest rated criteria in Spain. Feedback from parents was one of the lowest three rated criteria in Belgium, Brazil, Bulgaria, Mexico and Turkey.

Given the importance of professional development in some education systems it is important to clarify the role of appraisal and feedback not only in identifying development needs but also in assessing the impact of professional development on the work of teachers within schools. It is clear that while it is of moderate or high importance in the appraisal and feedback of the majority of teachers across countries, it was not in the five highest rated criteria of any country.

Moreover, it was one of the lowest three rated criteria in teacher appraisal and feedback in Australia, Austria, Hungary, Ireland, Malta, the Slovak Republic and Spain. A broader view of professional development activities encompasses non-formal activities and the learning that takes place when working with peers and colleagues. Teachers' work with the school principal and colleagues in their school had moderate or high importance in the appraisal and feedback of a large percentage of teachers across countries. It was one of the top three highest rated criteria in Belgium, Denmark, Iceland, Norway and Portugal.

Given teachers' roles in schools and their positions as educators, it is perhaps not surprising that for over three quarters of teachers, their knowledge and understanding of their main subject fields and of instructional practices in these fields was of moderate or high importance in the appraisal and feedback they received.

This was considered one of the most important items in teachers' appraisal and feedback across countries. Knowledge and understanding of their main subject fields was one of the two most important criteria in Australia, Brazil, Bulgaria. Hungary, Lithuania, Malaysia and Mexico. Similarly, knowledge and understanding of instructional practices in their main subject fields was one of the two most important criteria for teacher appraisal and feedback in Estonia, Hungary, Malaysia, Mexico, the Slovak Republic and Slovenia.

4.4.3 Outcomes of Appraisal of Teachers

The following discussion of the outcomes of teacher appraisal and feedback focuses upon relatively direct outcomes, including monetary rewards and career advancement, teachers' development needs, and a variety of non-monetary rewards. Additional aspects discussed are the actions taken by school principals when specific weaknesses are identified.

Seven specific outcomes that reward and/or affect teachers and their work were dentified as possibly stemming from teacher appraisal and feedback, a change

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in salary, a financial bonus or another kind of monetary reward, opportunities for professional development; a change in the likelihood of career advancement, public recognition from the school principal and other colleagues, changes in work responsibilities that makes teachers' jobs more attractive, and a role in school development initiatives. In interpreting the data, it should be kept in mind that the percentages only represent teachers who received appraisal or feedback in their school.

A far more common outcome of teachers' appraisal and feedback is some form of public recognition either from the school principal or from teachers' colleagues. Thirty-six per cent of teachers said that their appraisal and feedback had led to a moderate or large change in the recognition they received from their school principal and/or colleagues within the school. Public recognition is a clear incentive and a non-monetary outcome which highlights the role of teacher appraisal and feedback in rewarding quality teaching.

Unfortunately, while it was more common than monetary outcomes, recognition was still not very frequent and clearly in many countries there are weak links between appraisal and feedback and both monetary and non-monetary outcomes.

A key feature of systems of appraisal and feedback is to provide a mechanism for assessing and improving the performance of staff. A number of development mechanisms can result from identifying specific needs, creating development opportunities within and beyond the school, and rewarding teachers for enhanced performance (OECD, 2005).

Teachers reported on three development outcomes from teacher appraisal and feedback, opportunities for professional development, changes in work responsibilities that make their job more attractive;and obtaining a role in school development initiatives.On average across countries, just fewer than one-quarter of teachers reported that appraisal and feedback led to a moderate or a large change in their opportunities for professional development.

The largest proportions were in Bulgaria (forty-two per cent, Estonia (thirty-six per cent), Lithuania (forty-two per cent), Malaysia (fifty-one per cent), Poland (thirty-eight per cent) and Slovenia (thirty-six per cent). Slightly more teachers reported an impact on charges in their work responsibilities and thirty per cent on their role in school development initiatives.

Identification of Weakness in Teacher Appraisal

An essential aspect of any form of appraisal or feedback is the identification of strengths and weaknesses and taking steps to build on the former and correct the latter.

Information was collected from school principals on actions taken when weaknesses are identified as a result of teachers' appraisal. Data collected focused on the extent of communication with the teacher; whether it is used to establish a development or training plan for the teacher;the relationship with a broader evaluation framework; and whether there is a financial impact for teachers.

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The information collected in an appraisal of teachers' work can serve a number of purposes. It can be discussed with the teacher to communicate a judgment about their work and performance, it can be communicated to other bodies or institutions outside of the school, or it can be kept by the school principal to inform his/her own judgments.

Informing external institutions may be part of regulatory requirements concerning the appraisal of teachers' work or of a broader regulatory structure concerning teachers' careers and their work. External communication may also indicate a more bureaucratic structure or top-down management practices than communication to the teacher. In a number of countries, using appraisal and feedback to establish a development or training plan for teachers to address weaknesses in their teaching is less common than simply reporting these identified weaknesses to the teacher.

This indicates that teacher appraisal is either not linked to professional development or that professional development is not common (either may be a concern if teachers' professional development is considered useful). Up to one-quarter of teachers worked in schools whose school principal reported that they never establish a development plan if an appraisal identifies weaknesses in Austria (twenty-three per cent), Estonia (eleven per cent), Hungary (twelve per cent), Ireland (nineteen per cent), Korea (seventeen per cent), Norway (twenty per cent), Poland (eleven per cent), Portugal (fourteen per cent), the Slovak Republic (thirteen per cent) Slovenia (sixteen per cent) and Spain (twenty-two per cent).

The use of teacher appraisal and feedback for professional development appears to be prevalent in certain countries. In Australia (fifty-eight per cent) and Mexico (thirty-five per cent) at least one-third of teachers had school principals who reported that they always establish a development plan. Moreover, in some countries it is common to discuss measures to remedy weaknesses with teachers: over three-quarters of teachers in Hungary (eighty-one per cent), Lithuania (seventy-six per cent) and Poland (eighty-three per cent) worked in schools whose school principal reported that they always discussed these measures with the teachers concerned

Teachers' Perception

Teachers' perceptions of the appraisal and feedback they receive is likely to be shaped by the degree to which they consider it a fair and just assessment of their work.

It may be assumed that teachers who do not consider their appraisal and feedback a fair assessment of their work would also have a negative view of other aspects of its impact and role within their school. Impressions of fairness are also linked to indicators of the extent to which the outcomes and incentives of an appraisal and feedback system are properly aligned with teachers' work, what they consider to be important in their teaching, and the school's organizational objectives.

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For example, if teachers are appraised and receive feedback on a particularly narrow set of criteria or on a particular outcome measure which they feel does not fully or fairly reflect their work, a measure of the fairness of the system should highlight this problem. The positive impact teachers perceive that appraisal and feedback has on their work is important given that, on average across countries, thirteen per cent of teachers reported receiving no appraisal or feedback in their school.

These teachers may be missing out on the benefits of appraisal and feedback both for themselves and for their schools, and on commensurate developmental opportunities. This may be a bigger concern in some countries than in others. A number of countries have a large proportion of teachers who received no appraisal or feedback in their school. This was apparent in Ireland (twenty-six per cent of teachers have not received appraisal or feedback from any source in their school) and Portugal (twenty-six per cent) where over one-quarter of teachers have not received any appraisal or feedback in their school and particularly in Italy (fifty-five per cent) and Spain (forty-six per cent) where around one-half of teachers have not received any appraisal or feedback.

Policy makers looking to further develop systems of teacher appraisal and feedback will be interested to learn that of those teachers who received appraisal and feedback in Italy and Portugal the percentage who considered it helpful was above the average. In these countries with a less well-developed system of teacher appraisal and feedback, the benefits for those teachers it does reach seem to be considerable. This appears to be a clear signal to policy makers that appraisal and feedback can improve the working lives of teachers and school effectiveness.

Impact on Teaching and Teachers' Work

Teachers' views on their appraisal and feedback offer important insights into the nature and use of feedback systems in schools and a context for discussion of the impact upon teaching and teachers' work.

Information was obtained on the extent to which the appraisal and feedback teachers received led to changes in eight aspects of their work, classroom management practices; knowledge and understanding of teachers' main subject field; knowledge and understanding of instructional practices in their main subject field; a development or training plan to improve their teaching; teaching students with special learning needs; handling of student discipline and behaviour problems; teaching students in a multicultural setting; and the emphasis on improving student test scores.

Appraisal and feedback has the greatest impact on teachers' emphasis on student test scores. Just over forty per cent of teachers considered that appraisal and feedback led to a moderate or large change in this aspect of their work. Teachers in Australia, Brazil, Bulgaria, Ireland, Italy, Malaysia, Malta, Mexico, Poland, Portugal, Slovenia and Turkey reported the greatest impact in this area (measured as the percentage of teachers that considered that appraisal and feedback led to a moderate or large change in this aspect of their work).

For over one-third of teachers, appraisal and feedback led to a moderate or a large change in their classroom management practices and teachers reported this as one of the two largest impacts upon aspects of their work in Australia, Austria, Belgium, Brazil, Bulgaria, Hungary, Ireland, Mexico, Norway, Slovenia and Spain.

Similar proportions of teachers reported moderate or large changes in their knowledge and understanding of their main subject field and of instructional practices in that subject field. Teachers in Spain reported a particularly weak impact on these aspects of their work which is commensurate with the low importance they received for teacher appraisal and feedback. Knowledge and understanding of instructional practices had the greatest impact in Austria, Estonia, Lithuania and the Slovak Republic.

Appraisal and feedback had the least impact on teaching students in a multicultural setting which, as noted, was not an important criterion in the appraisal and feedback received by most teachers. This may explain why it had the least impact on this aspect of teachers' work in over two-thirds of countries in the worlds. Findings were similar for the impact on teaching students with special learning needs and the explanation may also be the same. For policy makers wishing to emphasize these aspects of teaching and schooling, this is a potentially important finding.

Appraisal and feedback had a greater impact on teachers' handling of student discipline and behaviour problems and was particularly strong in Denmark, Norway and Spain relative to the impact on other aspects of teachers' work in these countries.

Teacher Appraisal and School Development

A key question regarding under performance is how it is measured and how information is obtained to determine a teacher's level of performance. It is difficult to take steps when decision makers cannot obtain or properly measure information about performance. It is therefore important that across countries fifty-five per cent of teachers agree that their school principal has effective methods to determine whether teachers perform well or badly. This is an important finding given the difficulty of determining teachers' performance. However, more than sixty per cent of teachers disagreed with this statement in Denmark, Iceland, Ireland, Korea, Norway and Spain.

Forty-four per cent of teachers agreed with the statement that teachers' work is reviewed merely to fulfill an administrative requirement. This is a finding that could be used to support the claim that appraisal and feedback had a positive impact upon many teachers, but it also shows that for many teachers this is mainly an administrative exercise. Just fewer than half of teachers reported that the review of teachers' work has little impact on how teachers act in the classroom.

However, sixty per cent of teachers reported that a development or training plan is used in their schools to improve their work as a teacher. This is a positive sign if such plans have a positive effect. However, in Austria and Korea over two-thirds of teachers disagreed that this occurred.

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4.4.4 Impact of Teacher Appraisal and Feedback

The impact of appraisal and feedback is complementary to the direct outcomes discussed above but here the focus is on less tangible impacts, such as teachers' job satisfaction, effect on their teaching, and broader school development. To better illustrate these issues, the discussion begins with teachers' perception of the nature of their appraisal and feedback. Feelings of insecurity, fear and reduced appreciation of work can occur when a new or enhanced appraisal system is introduced in an organization (Saunders, 2000). An emphasis on accountability can be assumed in some instances to imply strict and potentially punitive measures and thus have a negative impact upon teachers, their appreciation of their jobs and work as teachers (O'Day, 2002).

In some respects, this appears to have been expected in some education systems that introduced new systems of teacher appraisal and accountability (Bethell, 2005). The results presented here do not show that a system of teacher appraisal and feedback will have a negative impact upon teachers. Specific systems can have negative impacts and considerable research has been conducted into the negative consequences of systems that misalign incentives and rewards (Lazear, 2000). A wide range of systems in countries emphasize different outcomes and different aspects of teachers' work. Yet, the great majority of teachers in these varied systems consider the appraisal and feedback they receive to be beneficial to their work as teachers, to be fair, and to increase both job satisfaction and, to a lesser degree, job security.

In fact, given the benefits of systems of appraisal and feedback, the greatest concern may be in countries that lack such systems. Moreover, it appears that very few systems fully exploit the potential positive benefits of systems of teacher appraisal and feedback and provide teachers with these benefits.

CHECK YOUR PROGRESS

7. What steps make it possible to achieve policy objectives in schools?
8. What is a key feature of the system of appraisal and feedback?

4.5 SUMMARY

- The term professional preparation is similar to the professional development of teachers.
- Professional development is essential for every individual, whether employed or not.
- Current technologies provide teachers with a cluster of supports that help them continue to grow in their professional skills, undertakings, and interests.
- The term profession is derived from the Latin word *profiteor* which means to profess.

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- Historical perspective can be seen in relation with the era when a profession began to professionalize.
- The sociological investigation of the professions began in the 1930s with attempts to identify the defining characteristics or traits that distinguished professions from other occupations.
- A teacher is accountable for her/his work and also to whom she/he is dealing with.
- As far as pedagogy is concerned, the desired goal and the methodology of teaching is interconnected.
- The members of a profession not only see themselves as members of a profession but are also seen as a profession by the rest of the community.
- Professional purposes are characterized in two related ways. Firstly, they concern the interests of others. The others are people who need specialized help from the professionals. Secondly, their concern is in a special aspect. It means the specialized area, which a person has opted.
- The effectiveness of the professional development programmes are evaluated based on hands-on-experiences provided to the participants to learn and master new knowledge and skills.
- Learning measures the trainees' skills and knowledge which they were able to absorb at the time of training.
- The evaluation phase consists of four levels touching various aspects such as participants' reaction, participants' learning, participants' use of new knowledge and skills and student learning outcomes.
- The type of students opting for teacher education programme has changed from the young, full-time teachers to the old, part-time students.
- Transition from a pre-service teacher to an in-service teacher is a very challenging task. Though the pre-service teacher preparation programmes offer the basis of becoming a teacher, the actual classroom situation is new to them.
- A mentor is defined as an influential, established, knowledgeable member of an organization who supports and commits to the upward mobility of a protégé's professional career (Mincemoyer & Thomson, 1998).
- Identifying strengths and weaknesses, making informed resource allocation decisions, and motivating actors to improve performance can help achieve policy objectives such as school improvement, school accountability and school choice.
- Data were collected from school principals and teachers on these and related issues, including the recognition and rewards that teachers receive.
- Opportunities to strengthen the framework for evaluating school education in order to reap the benefits of evaluation therefore appear to exist in most, if not all, education systems.

- Frequency of teachers' appraisal and feedback is a starting point for analysis of these issues.
- Policy makers and administrators attempting to shape and develop the evaluation of school education would naturally consider the focus of teacher appraisal and feedback important in terms of providing incentives and shaping teachers' actions within schools.
- Countries vary substantially in the emphasis on student outcomes in teachers' appraisal and feedback.
- Given teachers' roles in schools and their positions as educators, it is perhaps not surprising that for over three quarters of teachers, their knowledge and understanding of their main subject fields and of instructional practices in these fields was of moderate or high importance in the appraisal and feedback they received.
- It appears that very few systems fully exploit the potential positive benefits of systems of teacher appraisal and feedback and provide teachers with these benefits.

4.6 KEY TERMS

- **Competent:** It refers to something having the necessary ability, knowledge, or skill to do something successfully.
- **Pedagogical:** It refers to something related to teaching.
- **Portfolio:** It refers to something relating to, denoting, or engaged in an employment pattern that involves a succession of short-term contracts and part-time work, rather than the more traditional model of a long-term single job.
- **Psychomotor:** It refers to something relating to the origination of movement in conscious mental activity.
- **Vocational:** It refers to something relating to an occupation or employment.
- **Delegation:** It means a body of delegates or representatives or a deputation.

4.7 ANSWERS TO 'CHECK YOUR PROGRESS'

1. Professional development is conceptualized as a 'learning process' which took place as a result of interaction between the teacher and their professional context.
2. Historical perspective consists of four professions, namely:
   - Ancient profession
   - Medieval trade profession
   - Industrial era profession
   - Modern profession

3. Agility means learning from experience and applying that knowledge in new situations.
4. The professional organizations in the field of teacher education function in India at school level are:
   - Central Board of Secondary Education (CBSE)
   - Central Institute of Education Technology (CIET)
   - Central Tibetan School Administration (CTSA)
   - Kendriya Vidyalaya Sangathan (KVS)
5. The National Council of Educational Research and Training (NCERT) was set up in India in 1961.
6. The significance of Navodaya Vidyalaya System lies in the selection of talented rural children as the target group and the attempt to provide them with quality education comparable to the best in a residential school system.
7. Identifying strengths and weaknesses, making informed resource allocation decisions, and motivating actors to improve performance can help achieve policy objectives such as school improvement, school accountability and school choice.
8. A key feature of systems of appraisal and feedback is to provide a mechanism for assessing and improving the performance of staff.

4.8 QUESTIONS AND EXERCISES

Short-Answer Questions

1. State the difference(s) between the terms professional and professionalism.
2. List the twenty-first century professional skills as explained by Tony Wagner in his books *The Global Achievement Gap*.
3. What changes were brought about due to the 'No Child Left Behind' policy in the field of teacher education?
4. How can strategies be developed to help with professional development of teachers?
5. What does the teachers' report regarding appraisal and feedback state?
6. What are some the main functions of Central Institute Of Educational Technology (CIET)?
7. List the objectives of Kendriya Vidyalaya Sangathan (KVS).

Long-Answer Questions

1. Explain the various methods through which evaluation of professional development programme can be done. What are the four levels of this evaluation phase?

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2. Explain the various measures that can be taken to prepare teachers through distance mode.
3. How does the National Bal Bhawan operate as an institution aiming at enhancing the creative potential of children? List the various roles played by the National Bal Bhavan.
4. Name and explain the professional organizations in the field of teacher education functioning at the higher education level in India.

4.9 FURTHER READING

Mohan, Radha. 2011. *Teacher Education.* Chennai: PHI Learning Private Learning.

Harvard, Gareth Rees; Phil Hodkinson. 1994. *Action and Reflection in Teacher Education*. New Jersey: Greenwood Publishing Group.

OECD. 2005. *Education and Training Policy: Teachers Matter: Attracting, Developing and Retaining Effective Teachers*. United States: OECD.

Website: mhrd.gov.in/institutions

UNIT 5 LATEST TRENDS OF RESEARCH IN TEACHER EDUCATION

Structure

5.0 INTRODUCTION

India has one of the prime systems of teacher education. Moreover, the university departments of education and their affiliated colleges, governments and aided institutions, private and self-financing colleges and open universities are also engaged in teacher education. The programmes are almost identical though the standard varies. In certain areas, the supply of teachers far exceeds the demand while in others, there is sharp scarcity. The situation at the elementary level in certain states is similar to international standards, where DIETs, CTEs and IASEs are making tangible impact on pre- and in-service teacher education. But, the same cannot be said about the preparation of secondary, vocational and pre-school teachers.

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Educational research develops new knowledge, which helps to improve the educational practice. It is hard to determine whether the accretion of research findings has made an impact on the practice of education. Even when research knowledge attracts the attention of policy makers in education, they treat it as information to shape a particular policy, or use it to justify an unpopular decision, cut funds, or may dismiss the research conclusions which are ambiguous to their beliefs. In spite of this, research in education in general and teacher education in particular continues to develop and make its offerings to the body of knowledge. This unit discusses the purpose and scope of research in teacher education, and exploring its various trends, provides an overview of the problems faced in the field of teacher education in India.

5.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Assess the purpose of research in teacher education
- Analyse the scope of research in teacher education
- Discuss the trends of research in teacher education
- Evaluate the problems being faced in the research of teacher education in India

5.2 NATURE AND PURPOSE OF RESEARCH

Essentially, there are two broad purposes of research in teacher education, namely:

(i) Understanding the educational phenomenon: This helps to conceptualize, explain, control and forecast the dynamics of a given phenomena. For example, to explain the phenomena of teaching means reaching at a conceptual structure of relationships with regard to teaching.

Conceptualizing means arriving at unified set of variables. Conceptualizing may not entail verification since many paradigms are imaginary in nature. A well-articulated framework applicable to many contexts based on systematic perspective is the presage-process-product paradigm of teacher education. Presage variables would include personality variables and process variables would imply curriculum transaction.

Explaining relationships among variables in teacher education is significant. Controlling variables in a network of relationships among variables operating in teacher education is essential. It is highly difficult to study the dynamics of a variable in isolation. For example, success of a teacher trainee in practice teaching may depend on numerous factors such as psychological make-up, personality, language fluency, communication skills, training received, experience, and motivation, grade level of students taught, subject matter and classroom conditions. The investigator studies how the new method of training

the teachers affects the performance of teacher trainees in practice teaching. For this, the researchers have to control a lot of the variables mentioned above, otherwise they will not be competent to arrive at a conclusion regarding the usefulness of the training. Hence, the influence of the intervening variables has to be controlled, if not experimentally but at least statistically.

(ii) Transforming the educational phenomenon: This means incorporating changes in the existing phenomena because of some dissatisfaction with it. When there is dissatisfaction with the present practices in teacher education, changes may be needed in the structure as well as the processes of teacher education. Research provides necessary ground for any changes to take place because changes based on research are genuine and effective.

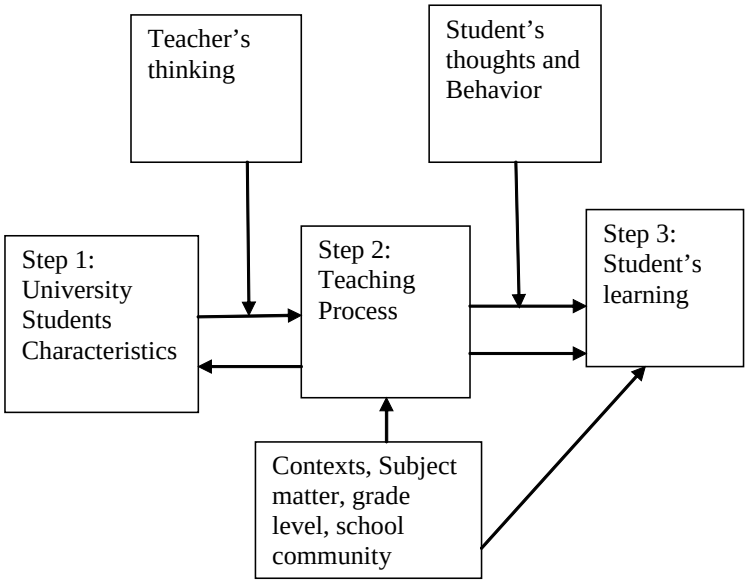

Fig. 5.1 *Teaching Process-variable involved*

5.2.1 Areas of Research

During the seventies, research in teacher education were mainly in areas such as selection criteria, qualities and abilities of a teacher, pre and in-service training of teachers, work load, job expectations, procedures and practices of teacher education in India and personality variables of teachers. In the later years, researches were classified under context, input process and output variables.

During the eighties, research was in areas of context, presage, process, and product. The presage variables include teacher-educator characteristics, i.e., formative experiences of teacher educators, their education and training, motivation, abilities, personality factors, intelligence, and teaching and training skills. Classroom interactions and transactions and mediating processes that lead to learning are process variables. Teacher behaviour in the classroom and supervisory behaviour of teachers relating to student teaching are some of the research variables.

The studies on outcome of teacher education include two types of variables—direct outcome of teacher education, i.e., student-teacher outcomes such as their achievements, attitudes and skills, and long term outcomes describing level of professional skills and teaching success or teaching effectiveness. In the twenty-first century, a number of researches are being carried out on inclusive education, continuous comprehensive evaluation, and Right to Education. Researchers are also focusing on developing of educational technology models for classroom teaching.

5.2.2 Status of Researches on Teacher Education in India

Research on teacher education in India has increased greatly in the last twenty years. A community of professors from several institutions has developed the capability to conduct coordinated large-scale studies and to prepare doctoral students. The process of cultural borrowing greatly influences the structure and conduct of teacher education as well as the substance and design of the research. Most studies are done to test how the North American theories and innovations can fit within the Indian cultural context. Status of researches on teacher education in India in various areas is as follows:

In the milieu of 'Sarva Shiksha Abhiyan', in respect to elementary education, universalization of Secondary Education and further strengthening of higher secondary education, teacher education needs to be strengthened. Every state should be asked by the NCTE to conduct surveys and submit estimates within stipulated time.

Nobody with 'Profit Motive' should be entrusted the task of training teachers. Criteria for admission into various teacher education programs, namely, NTT, ETE, B.El.Ed., B.Ed., M.Ed., C.P.Ed., B.P.Ed., M.P.Ed. are subjective in most cases. There are wide gaps between teaching attitude and teaching aptitude of the teacher educators as well as student teachers.

Teacher Education Institute

Some research studies have been conducted to this effect. Out of the four independent variables—teaching aptitude, language ability, general mental ability and social sensitivity—teaching aptitude and language ability have been found to be contributing most to educational competency. Social sensitivity and general mental ability have been found to also contribute (Mishra, Renu, 1993, DAVV, Indore). The performance at the first graduation/post graduation level may not ensure competency at B.Ed. and M.Ed. levels. So, admission criteria of educational programs should be inclusive of the status of candidates on Teaching aptitude and attitude, educational aptitude and attitude, respectively (Goel, D. R., Goel Chhaya; Sonal Patel, 2001, MSU, Baroda).

The correlation between M.Ed. Educational Profile percentage scores and B.Ed. percentage scores has been found to be 0.25. The coefficient of determination is 6.25 per cent. It means the variation in the M.Ed. Educational Profile scores can be explained through the B.Ed. percentage scores to the tune of 6.25 per cent. The 92.75 per cent of the variation remains unexplained (Goel D. R., Chhaya Goel, 2007, MSU, Baroda). The above studies suggest that there is a need to evolve suitable criteria for admission into teacher education programmes.

Philosophical Foundations

The Indian system of studying philosophy has six stages. These are *Padartha* (structure of the universe), *Pramana* (evidences), *Vada* (principles), traits of *parmatma/purush* or *atma* (form of individual and Universal soul), *Shrishti Prakriya* (process of creation of the universe) and *Moksha* (emancipation or liberation from the bondage of birth and death). Undoubtly, our system of studying philosophy is good to understand the inclusive nature of specific philosophy, but it prevails only in the traditional system of philosophical practice. It needs a sequential process to go through all the details of the philosophy. On the other hand, the Western system is easier to understand.

A number of studies have been conducted in the recent past on educational implications of the Sikh Gurus' *Bani* (Jasbir Kaur, 1998, Guru Nanak Dev University, Amritsar, Gurpal Singh, 1999, Punjabi University, Patiala), *Educational Philosophy of the Sikh Gurus* (D. N. Khosla, Meerut University, 1983), *Bhagavad Gita* (Subhash Chandra Panda, 2004, Berhampur University, Berhampur; Sunita Singh, 2006, Dr. Ram Manohar Lohiya, University, Faizabad), *Gramgeetha* (Shobhna Purushottam Saoji 2006, Sant Gadge Baba Amravati Vidyapeeth, Amravat), and Hermann Hesse's philosophy (Alk Mecwan, 2008, S. P. University, Vallabh Vidyanagar) and other philosophers.

Doctoral studies have also been conducted in India on Sankhay philosophy, life and works of Dr. Babasaheb Ambedkar, *Sakhi* of Sant Kabir, educational ideas of Pandit Deen Dayal Upadhyaya and Madan Mohan Malviya, philosophy of Mahatama Gandhi, Dev Atma, Gurudev Tagore, teachings of Bhisma in Mahabharta, Gautam Buddha, Shri Panduranga Shashtri, Upanishad, Osho of Rajnish, Sir Sayed Ahmed Khan, Yoga Vashishtha, Dr. S. Radhakrishnan, Shri Pandurang Athavle, Swami Vivekanand and Shri Aurobindo Ghosh, Ramakrishna Mission, Vinobabhave, Mahatama Jyotirao Phule, Chatrapti Sanu Maharaj of Kolhapur, Motibhai Amin, Maganbhai P. Desai, Guru Nanakdev Ji and Martin and Vedantic model of Swami Rama Tirtha.

Guru Arjun Dev visualized 'Guru' as one who can lead the disciples on the path of reality. His educational thoughts are deeply rooted in Indian tradition to acquire self-realization and self-manifestation. Truth, love, beauty and bliss are the four paths leading spiritual education. He advocated absolute purity, absolute love, absolute honesty and absolute unselfishness as the four pillars of international understanding. Guruji advocated that evaluation is not the monopoly of the teachers alone as children also evaluate their own work.

Basically, the Sikh Gurus were idealists and their philosophy comes under the umbrella of idealism. But, their understanding of the problems and their solutions were realistic and practical. They always worked out solutions in the context of their social, cultural, ethical, moral, political and economic nature. Sikhism is basically a relationship of Guru (Teacher) and Sikh (*Shishya*). Thus, their philosophy of life has great significance with respect to philosophy of education. In the views of the Sikh Gurus, it is essential that there should be overall development of man encompassing mental, intellectual, moral and spiritual horizons.

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For a self-realized soul, the universe is a demonstration of God. There is nothing more purifying on earth than comprehension. The educational and philosophical implications of *Bhagavad Gita* state that the status of Guru is higher than that of God. A teacher with sound personality and super character is the only ideal. The teacher is a 'Jyot 'and 'Jyotsana' which enlightens the little ones. A teacher should provide insight to his pupils to awaken their conscience, so that they are in a position to discriminate between *Paap* and *Punya* good and evil. Every teacher should be a friend, philosopher and guide for his learners as Gita depicts through the association of Lord Krishna and Arjuna.

Scientific attitude, gender equality, national integration, respect for all religions, cleanliness, humility, sensitivity, punctuality, dignity of labor, patriotism are some of the values identified and confirmed from preaching of *Gramgeetha*. The text of the National Saint Tukdoji Maharaj is its own testimony, for example, 'Aggyananech Durvtey Pragati', 'Dhan He Gribanche Rakt', 'Shram Hi Gavachi Dault', 'Desh Dukhi Jnu Mazhechi Shareer'.

The diverse philosophy of all the philosophers should be the basis of education. 'National Education Day' is observed on 11 November to celebrate the birthday of Maulana Abul Kalam Azad, the first union Education Minister of Independent India. To what extent have we been able to emancipate ourselves from cast, creed, religion, region, relation in this secular state of India? To what extent have we integrated naturalism of Rabindranath Tagore to realize the liberty of learner? Let us search and re-search.

Historical Foundations of Teacher Education

Studies have been reported on the progress of Primary Education in Amritsar district after NPE 1986 and Aligarh district post-independence, development of post-basic education in Gujarat, development of higher education in Manipur and UP post-independence, history of Pre-Service Training of Secondary Teachers in Maharashtra, and In-service Teacher Education in Punjab from 1947-1990, history and development of Nair Service Society as a voluntary Educational Agency in Kerala and Educational Thoughts of Maharaja Chatur Singh Mewar (1880-1929). From 'Escola Normal' during the Portuguese Goa (1841-1961) to the proposal for Teacher Education in 2008, India is an eyewitness to a large range of teacher education programmes.

The authority of conventional teacher education model is fully established. The land, area, location, institutional plant, environment, objectives, curricula, learning resources, modes of transaction, evaluation modes and mechanisms, placement, renewal are talked of even today. But, there are question marks on the present day's teacher education. Being most deployed, diluted, and least professional, distance education has done a lot of harm to teacher education. Commercialization is a threat to most of the traditional teacher education colleges. None of the innovations in teacher education, such as longer Duration of Teacher Education, integrated Teacher Education, personalized teacher education, and specialized Teacher Education could be institutionalized further. Either these have faded or are limited to the place from where these originated.

Amar Singh (2008, Dr. R.M.L. Avadh University) explored the origin and development of the ancient Indian Universities to address the problems of present Higher Education, systematically and analytically, particularly in management, finance, and teaching-learning. The profiles and contribution of Acharyas and Dwar-Pandits are evident and educative. The research volume presents how History is a *Santap* of *Ateet* and *Vartman*. It is an eye opener to find how the present higher education system has failed to sustain and integrate the values the Ancient Indian Universities.

It is a unique study on the origin and development of ancient Indian Universities, namely, Takshshila, Nalanda, Vikramshila, Vallabhi, Odantpuri, Jagdalpur, Kashi, Kashmir, Mithila, Nadia, Dhara, and Kannauj. The research helps us recreate the structural organ-gram and functioning of each one of these universities through the learning resources produced by the Acharyas, reports, remains and narrations, both, through verbal tradition and material tradition.

In 2011, Parviz Mohammad Salahi Azami conducted a comparative study 'Education in India and Iran' with a reference to the period between 1565 and 1665 and found that the aim of primary education was to teach alphabets and religious prayers. There were important centers of education in India such as Agra, Delhi, Jaunpur, Bidar, Lahore, Gujarat and Kashmir. Some Madrasahs which were established in that time were Ulug-Beg, Miri Arab, Kukultash, Mumin Khan, Madari, Shirdar, Abdul Azizkhan and so on. The period of Akbar marks the beginning of a new era in the history of medieval education. He founded a vast and rich library. He established Madrasahs at Agra, Fatehpur and other places. Hindus and Muslims were taught in the same schools and colleges. He got many Sanskrit books translated into Persian. Many Madrasahs were established even by private individuals during Akbar's reign.

Sociological and Psychological Foundations of Teacher Education

In this age of nuclear families, the focus on pre-primary education has become high. The studies on pre-primary teacher education are rare. We are struggling with the problem of first transition from home to pre-school in the case of three year old children. Scenario of the mental state of the child, parents, teachers and the support staff needs no demonstration.

On the other hand, we have 'Anashrit Ashrams' for the old. There are problems of universalization of primary education, population education, adolescent education, higher secondary education and medium of instruction. English language as a medium of instruction seems to be our biggest problem. There are gaps between teaching styles and learning styles. There are also problems of teacher burn-out and rust-out, degeneration of values and institutions, teacher absence and Para teachers. Stress, strain, anxiety, tension, conflicts, psycho-neuroticism are on the increase. There are problems of education with mental social, as well as physical burden. There are problems of value conflicts and value clashes.

In spite of the virtuous hope of all-round development of personality through holistic education, our society is turning from naturalistic, idealistic, and humanistic to existentialistic and pragmatist. It has been found that the higher the administrative

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power, lower are the affect attributes. Social and psychological abuse is on the rise. Value discussion models, value analysis models, value clarification models and jurisprudential models have not been employed meticulously. Some studies on Applied Psychology have been found to have desirable results in various areas of guidance and counseling. H. K. Tyagi conducted a study on the effectiveness of guidance programme in relation to students' achievements.

Attempts have been made to address learning difficulties, learning disabilities, and neuro-psycho-social problems. Though the effectiveness is evident in some cases, the efficacy needs to be scientifically studied further.

There are wide gaps between school education and teacher education. All of us are for child-centered education. But, even when we know that children develop their own theories, we go on imposing our models on them. There are wide differences between laboratory conditions of teacher education institutions and field conditions. The training needs perceived by most of the educational administrators and headmasters are related to maintaining appropriate human relations, stress management, conflict resolution and group dynamics. Students are in need of emotionally supportive teachers. Democratic environment is needed more than authority and suppressing.

Studies on psycho-social factors of adjustment of school teachers gave a message to policy makers and administrators that all attempts should be made for compatible placement of teachers in the context of their work place and conditions. The high professionally committed teachers have been found to have high occupational stress as compared to low professionally committed teachers. Professionally committed teachers have been found to have high job satisfaction. Researches have demonstrated the effectiveness of various models of teaching such as CAM, ITM, and AOM. Education programmes for enhancing emotional intelligence of student-teachers have been found to be successful in terms of raising the EQ levels.

Economics of Education

D. R. Sharma conducted a comparative study of expenses of the Educational Institutions of Secondary Education of Rural and Urban Areas of Mehsana district and their implications for Pupils' Achievement. In 1996, S. Mehta conducted a case study of Ujjain district in terms of Educational Progress and Economic Development. In 2000, P. P. Punjal conducted a comparative study on Economics of Physical Education and Sports of Maharashtra and Punjab. In 2002, Y. R. B. Sharma conducted a study on Investment on Education of Scheduled Caste Self-Employed Persons in twin cities of Hyderabad and Secunderabad. The NAAC also studied per capita investment on teacher education programs offered by the institutions of higher education. In 2005, S. Mullick conducted a Study of Institutional Effectiveness of the Colleges of Education in relation to the Cost of Teacher Education.

CHECK YOUR PROGRESS

1. Define conceptualizing.
2. Name the six stages of studying philosophy in the Indian system.
3. How did Guru Arjun Dev visualize the 'Guru'?
4. What is the role of the teachers according to the philosophy of the Sikh Gurus?
5. When is National Education Day celebrated in India?

5.3 RESEARCHES ON TEACHER EDUCATION

Researches have been conducted on various aspects of teacher education. Some of the topics of research are as given below:

5.3.1 Job Satisfaction of Teachers and Performance

P. R. Manjula (Bhartihar University, 1995) has done a pioneer intervention into the job satisfaction of Higher Secondary School Teachers of the Coimbatore district of Tamil Nadu. A. Mary Lily Pushpam (Bhartihar University, 1997) conducted a study on Attitude Towards Teaching Profession and Job Satisfaction of Women Teachers in Coimbatore. S. Khlai-UM (PU, 1999) conducted a study on Job Satisfaction and Job Dissatisfaction of dual factor theory in relation to personality types and self-concept of secondary school teachers of Thailand. V. P. Pal (PU, 2001) conducted a study of Job Stress, Job Satisfaction, and Adjustment of Physical Education Teachers in relation to their job placement. Verma (DAVV, 2002) conducted a study of job satisfaction of teachers in relation to Job Stressors, Role Commitment, Vocational Maturity and Social Intelligence.

M. L. Sharma (PU, 2002) conducted a comparative study of Job Stress, Job Satisfaction and Adjustment of Physical Education Teachers of Himachal Pradesh, Punjab and Union Territory Chandigarh. A Hamid (MDU, 2002) conducted a study of the Accountability of Secondary School Teachers in relation to their Job Satisfaction and Morale. B. Shrivastava (University of Lucknow, 2002) conducted a study of Mental Health, Values and Job Satisfaction among teachers of Hindi and English Medium Schools.

The findings of these studies have confirmed that the teachers have problems of mental health, job satisfaction and job stress. Numbers of studies have been conducted on Job Satisfaction of Teachers and their teaching performance and effectiveness (Dharmendra Malik, MDU, 2005; J. Kaur, KUK, 2004; K. Venkteshwara Rao, Shri Venkteshwara University, 2002; I.V.R. Readdy, Andhra University, 2001).

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5.3.2 Influence of Psycho-Social Factors on Teaching

G. Yadagiri (Osmania University, 2000) conducted a comparative study of professional attitudes and teacher effectiveness among Physical Science teachers of Ranga Reddy and Medak districts of Andhra Pradesh. A. H. Kulkarni (Shivaji University, 2000) conducted comparative study of male and female secondary school teachers with respect to their personality traits, competency and teaching effectiveness. R. Balu (SNDTWU, 2001) conducted a study of the role performance of teacher educators in relation to their profile. M. Pal (PU, 2001) conducted a comparative study of Attitude of School and College Teachers Towards Creative Learning and Teaching in relation to Mental Health.

A. Khaleque (PU, 2001) conducted a study of Burn-out in relation to Self-Concept and Introversion-Extraversion among Elementary School Teachers in Assam. R. Rao (MSU, 2001) conducted a study leading to the development of an In-Service Training Program for Navodaya Vidyalay Teachers for Meeting Students' Emotional Needs. K. S. Shakunthala (Bangalore University, 2001) conducted a study of the adjustment of Secondary School Teachers in relation to their Teaching Competency, Emotional Maturity and Mental Health. J. Kaur (PU, 2001) studied mental health as related to Vocational Maturity of male and female prospective secondary school teachers.

M. S. Chonakwar (B. R. Ambedkar University, 2002) conducted a study of personality characteristic of scheduled caste and non-scheduled caste primary teachers in relation to their classroom adjustment attitude towards teaching. K. K. Tripathy (PU, 2002) conducted a study of Role Structure and Role Stress in relation to Work Satisfaction of Primary School Female Teachers in Orissa. Y. K. Anand (PU, 2002) conducted a study of role Efficiency of Polytechnic Teachers and its relationship with personal and organizational characteristics. K. D. Patil (SNDT Women's University, 2002) conducted a study of Teacher Performance of Junior College Teachers in relation to some Personality Dimensions.

K. Joshi (Gujarat Vidyapith, 2003) conducted a study on the Teaching Aptitude of Higher Secondary School Teachers of Gujarat State in the context of some Psycho-Social variables. N. Bharagave (Bundelkhand University, 2003) conducted a study of personality characteristics, value and SES of Pupil Teachers in relation to their attitude towards social change. G. P. Raval (Saurashtra University, 2003) conducted study on approaches of coping with stress factors and teacher performance. A Study was conducted on Social Intelligence and Teacher Efficiency (R. Agrawal, Bundlkhand University, 2003). V. Goswami (Banasthali Vidyapith, 2003) conducted a study on Effect of Participatory Teacher Education Programmes on the Conceptual Development and Self-Development of Student Teachers. G. Pareek (PU, 2003) conducted a study on the Effect of Realization Technique on Job Stress in relation to Blood Pressure, Hypertension and Heart Rare in Women Teachers.

S. Shaik (Shri Venkateshwara University, 2004) conducted a study of Academic Achievement and Prevalent Values of DIET students in Andhra Pradesh. Studies have also been conducted on the influence of certain Psycho-social factors in Scholastic Achievement of B.Ed. Students (C. Manchala, Shri Venketeshwra

University, 2005). S. S. Chahar (MDU, 2005) has conducted a study of teaching competency of student teachers in relation to certain non-cognitive variables. B. K. Pal (JMI, 2010) conducted a study on core teaching skills of primary teachers in relation to their self-concept and adjustment. Researcher himself developed an observation schedule to measure the core teaching skills of primary teachers. Researcher found that female teachers were more adjusted in teaching profession.

5.3.3 Attitude towards Teaching

A. M. Reddy (Osmania University, 1997) conducted a study of attitudinal changes among the pre-service teacher trainees towards the teaching profession. The studies have confirmed that attitudinal changes do occur towards the teaching profession through pre-service teacher education. Creativity and change proneness definitely contribute to professional pleasure. S. Patanrasd (SPU, 1998) conducted a study of the attitude of student teachers towards the teaching profession and globalization with reference to certain variables.

D. Baland (MDU, 1999) investigated the Study Habits, Reading Interest, Attitude towards Teaching and their bearing upon the achievement of the pre-service teachers. S. K. Gupta (Baraktullah University, 2000) compared creative and non-creative secondary school pupil teachers of Madhya Pradesh in relation to values, adjustment and attitudes towards teaching. D. T. Reddy (Mysore University, 2000) conducted a critical study of the professional pleasure in relation to creativity and change proneness among secondary school teachers.

5.3.4 Classroom Teaching Effectiveness

S. Kher (DAVV, 1999) conducted case study of Need Based Programs for Pre-Primary Teacher Education. A. K. Shrivastava (B. R. Ambedkar University, 1999) conducted a comparative study of the effect of training on Teaching Attitude and Self-concept of various types of trainees under DIET programme. Baiju K. Nath (University of Calicut, 1998) developed self-instructional package for Secondary School Biology teachers for their in-service learning. H. B. Jani (Bhavnagar University, 1998) studied secondary teacher trainees' perceptions of teaching. Mamata (Shri Shahuji Maharaja University, 1998) explored factors of specific training needs of lady teachers in study aimed at crystallization of professionals values among the teachers of higher secondary schools in Rajasthan.

M. Singh (B. R. Ambedkar University, 2000) conducted a study on Identification and Comparison of Language Sills for Hindi and English Teachers of Secondary School Level. D. T. Reddy (University of Mysore, 2000) conducted a critical study of Professional Pleasure in Relation to Creativity and Change Proneness among secondary school teachers.

K. Jayaramanna (Andhra University, 2001) conducted a study of teacher effectiveness in relation to work orientation and achievement of students at Primary Level. S. Devi (MDU, 2001) studied the effect of Classroom Questioning Behavior Training using Games on Teaching Competence and Pupils' Achievement. J. K. Suhag (MDU, 2001) conducted International Analysis of Classroom Behaviour of

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Effective and Ineffective History Teachers. M. S. Bhatt (Gujarat Vidyapith, 2001) conducted a study on Primary Teacher Trainees' Perceptions of Teaching. R. Balu (SNDT, 2001) conducted a study of Role Performance of Teacher Educators in relation to their profile.

R. Chandra (PU, 2002) focused on sustainable changes relevant to community and school needs in curricular input and transactional modes of elementary teacher education. A study on the effect of the learning inputs provided in Teacher Education Program on Teaching Efficiency of Teachers was conducted by A. Goel (Banasthali Vidyapith, 2002). V. Vohra (KUK, 2002) proposed a Training Model after identifying training needs of Secondary School Language Teachers.

Padmini P. Rani (Avinashilingam Deemed University, 2003) developed oral communication efficiency in English B.Ed. trainees.

L. K. M. Baburao (Andhra University, 2003) conducted a study of DIETs, CTEs and IASEs with special reference to NPE 1986. S. P. Shukla (Gujarat Vidyapih, 2003) studied the effectiveness of Video Programs with Discussion and without Discussion, and Traditional Methods on the Achievement of Student Teachers in relation to certain variables.

P. Mishra (KUK, 2004) conducted a comparative study of classroom verbal behavior of Student Teaches and In-Service Science Teachers of Secondary Schools. V. Singh (University of Lucknow, 2004) studied the effect of B.Ed. Training Programme on Teaching Competency of Pupil Teaches.

S. Chawla (MDU, 2005) conducted a study on Interactional Analysis of Classroom Behavior of Effective and Ineffective Hindi teachers. R. Pareek (Banasthaly Vidyapith, 2005) conducted an analytical study of Computer curriculum in teacher education program. S. Singh (MDU, 2005) studied the effect of Classroom Questioning Behaviour Training of Teaching Competence of student teachers and their Self-Concept. V. Upadhyaya (B. R. Ambedkar University, 2005) conducted comparative study of the impact of the Teachers' Training on Self-Concept, Attitude towards Teaching and Values in Self-Financing and Government Aided Institutions.

5.3.5 Predictors of Teaching Proficiency

D. K. Diwan (MDU, 1993) studied the predictors of academic achievement of student teachers in terms of Aptitude, Attitude, Participation and Human values. All these studies have contributed to the knowledge base of teacher education significantly, but, there is a need to systematically work out the admission criteria into various teacher education programmes.

D. Baland (MDU, 1999) investigated the Study Habits, Reading Interests, Attitude towards teaching and their bearing upon the Achievement of the Pre-Service teachers. N. Kumari (PU, 1999) conducted a study of Entrance Tests and Measurement Performance of B.Ed. trainees in relation to Psychological and Socio-Demographic variables.

R. M. Ghatel (SNDT, 1999) studied the Performance and Job Satisfaction of Teacher in relation to their Maturity, Locus of Control and Organizational Conflict.

N. Singh (Jai Narayan University, 1999) conducted a study of Senior Secondary Schools of Jodhpur Division in terms of Organizational health and Teachers' Attitude towards Teaching Profession and Adjustment. All these studies have confirmed that healthy Organizational Climate for Effective Education is essentially required.

A. Day (Bundelkhand University, 2000) studied the Teachers' Professional values, Family Relationship and anxiety in relation to Organizational Climate. S. Awasthi (Bundelkhand University, 2002) studied Teacher Alienation, their Morale and Principal's Leadership and institutional Effectiveness in different Intermediate Colleges on the basis of Organizational Climate. C. Shekhar (Bundelkhand University, 2002) conducted a study of the Locus of Control of Pupil Teachers Admitted on Weightage of Bundelkhand University in Relation to their Future Teaching Effectiveness Londhe (Pune University, 2003) studied the Teaching Aptitude of Student Teachers with reference to Creativity and Teaching Competency.

CHECK YOUR PROGRESS

6. What was one of the findings of the research conducted by B. K. Pal?
7. What was the focus of D. T. Reddy's research in the field of teaching?

5.4 INNOVATIONS IN TEACHER EDUCATION

The innovation of micro-teaching has been institutionalized across India. Model-teaching appeared and disappeared at demonstration level, whereas techno-pedagogy is in infancy stage. A number of schools have started smart classes. Hence, some teacher education institutions are also trying to prepare their future teachers to cope with these challenges. Personalized Teacher Education appeared in one form or the other (DAVV, Indore, Banasthali, Lucknow University). A large number of visitors appreciated these Personalized Teacher Education Programs, but none adopted them in their institutions. Participatory Approaches to problem solving have been effectively demonstrated in classrooms.

Attempts have been made by the Intel 'Teach to the Future' in integrating ICT in Teacher Education at pre-service and in-service levels. Intel has been organizing training programs to orient the pre-service and in-service teachers with sizeable inputs of ICT.

The Regional Institutes of Educations of NCERT have been offering four year B.A./B.Sc./B.Ed. Integrated programs of Teacher Education. Also, the RIEs have been offering two year B.Ed. programme. The University of Delhi has been offering four year integrated program (B.EI.Ed) for the preparation of elementary teachers. A two year PG Diploma in Educational Technology proposed by PG Departments of Teacher Education of SNDT University and two year integrated M.Ed. programmes have been approved.

Modular integrated teacher education Programs for Higher education, and e-Teacher education programs have been formulated by some of the institutions. A number of innovations have been attempted in evaluation such as Choice Based Credit System, Electronic Distribution of Examination Papers (EDEP), On Demand Testing, Automated Testing, Double Valuation, Testing of Affect Attributes have been attempted. Progressively, there is a shift to total internal evaluation based semester system. Such innovative practices in evaluation are being progressively integrated in teacher education curricula.

5.4.1 Educational Technology

A sizeable number of studies on effectiveness of CAI developed through various computer languages, employing either pre-experimental design or quasi-experimental design have revealed significant mean score gain form pre-test to post-test. Studies on the effectiveness of CAI reveal favourable reactions of students and teachers towards the CAI. There are few studies on effectiveness of CALM in various modes, namely, text, graphics, text, and graphics, text graphics and music. It has been found that the composite modes may not always ensure higher level of language learning (Das, 1998, MSU).

A study conducted on Time Space Personnel Management System revealed that the computer-based TSPM system was found relatively more acceptable and better functional than the manual TSPMS (Biswal, 1995, DAVV).

The studies on the pedagogic/techno-pedagogic analysis of the computer based educational instructional programmes are not many. These studies reveal that there should be added focus on production variables, pedagogic principles and spatial and temporal contiguity of various message forms (Patel, 2001MSU; Chaudhari, 2005, MSU).

A sizeable number of teacher education institutions in India have initiated ICT in Education either as a core course or as an optional course. In spite of the impeding factors, namely, limited staff, inadequate laboratories with maintenance problems, sizeable classes, the courses have been found to realize their objectives reasonably (Goel and Shelat, 2003, MSU).

A large number of teacher education institutions have been found lacking in facilities such as Internet, MS Publisher Acrobat Reader (Goel, 2005, MSU). A few studies conducted on the use of Internet in Teacher Education Institutions revealed that the student teachers largely lack in info-savvy skills and techno-pedagogic skills (Joshi, 1999, MSU; Dhodi, 2005, MSU).

Some studies have been conducted on bridging the gaps between teaching styles and learning styles. The studies are appreciable, but there is a need to conduct many more studies (Rathod, 2005, MSU). Studies conducted on language instruction through power point presentations on realizing communicative and functional languages have found that such presentation are indeed effective tools of learning the various languages (Yadav, 2005, MSU; Rathod, 2005, MSU).

There have been very few studies on developing language learning strategies and learner autonomy through web blogs. Blogs not only provide teachers with an

exciting new way to approach communicative language learning, but also give students a new reason to enjoy reading and writing. Educational Technology and ICT in Education have established their values. But, Technology in Education is not yet fully integrated. Hence, Technology in Education is still under-utilized.

Some of the teacher trainees make use of Internet for surfing, e-mail, research, core courses, and special areas. But, the Internet is rarely used for web designing, reflective dialogue and outsourcing. Measures of Internet safety are rarely employed. There is a need to develop Net-Savvy Skills in Teacher Educator Trainees (Goel, 2006, MSU).

5.4.2 Teaching Methods

A study on the Science curriculum transaction in secondary schools of Baroda city revealed that teachers are not clear about values of Science (P. S. Umashre, 1999, MSU). Student teacher is found to be more interested in using innovative methods of teaching the language than the in-service teachers. English language teaching at school level is found to be suffering from lack of interest and attitude (Kshamata Chaudhary, 2002, VMOU).

Use of inductive thinking model to teach Science at Primary level proved fruitful in developing the reasoning ability of students (Kishor Kumar K. Leuva, 2002, VNSGU). A study on development of science education in Nagaland concluded that more than half the total number of science teachers (fifty-seven per cent) were of the opinion that objectives of Science education were not clear to them which resulted in less achievement of objectives of science education (Khriesamhalie Pienyu, 2004, Kohima).

5.4.3 Educational Evaluation

K. Charate (Barkatullah University, 1993) investigated the causes of low achievement among normal children and attempted to design an appropriate curriculum and instructional strategies to tackle low achievement. N. S. Rathod (Bhavnagar University, 1993) conducted a study on 'Application of Item Response Theory to Criterion Referenced Testing'. M. Singh (Agra University, 1994) conducted a study of the differential effect of anxiety on Performance in Progressive and terminal examinations. A large majority of the candidates, while taking examinations, are rarely normal because of the faulty examination system, be it admissions into the educational programmes, periodical tests, or 'at-end test' fear of failure and aspiration for success keeps disturbing the candidates.

Neela Shelat and Anjali Mehta (MSU, 2003) investigated errors committed by students of Std. VIII in writing Gujrati. Number of attempts has been made on construction and standardization of tests in various areas. All these studies have definitely added to the knowledge base in the area o educational evaluation.

5.4.4 Environmental Education

Video film on Environmental Pollution was found to be effective in eliciting students' positive response (Indu Bala and U. Singh, 1999, SGU, Surat). Teacher educators

were found to be very positive towards Environmental Education (Anu Radha, 2005, Punjab University, Chandigarh). The Instructional Program on Environmental Studies facilitated the teacher in evolving teaching strategies for enhancing teacher pupil's interactions during the acquisition of process skills (N. Ramkumar, 2004, MSU. Baroda). Fr. Rayappan Irudayam, SJ. (MSU, 2006) conducted a Study on Development and Implementation of a Computer Based Multimedia Software Package to Enhance Environmental Awareness in the Students of Std. IX. The Environmental Education needs to be institutionalized in teacher education very intensively.

CHECK YOUR PROGRESS

8. State one significant innovation in the field of teacher education.
9. How has Intel's 'Teach to the Future' project helped in the field of teacher education?
10. What did studies on the development of science education in Nagaland reveal?

5.5 GLOBAL TRENDS IN TEACHER EDUCATION

The programmes designed, developed and implemented on Human Rights and Child Rights have been found significantly effective (Rucha Desai, 2007, MSU; Mamata Sheth, 2007, MSU). Human Rights Education ought to be an integral area of Teacher Education. Some factors are described below:

Life Skills and Value Education

Some studies conducted on identification of deviant thinking patterns and clinical sessions thereof reveal that thinking patterns can be changed through counseling in a relatively short period of time. Cognitive counseling technique is useful in acquisition of desirable thinking (Goel and Joseph, 1994, DAVV).Various studies on life skills and value education have focused on aesthetic sensitivity, critical thinking, and value towards society, profession and family. Strategies developed for teaching critical thinking revealed that thinking approach can facilitate the student to understand and relate to the concepts through self-analysis, evaluation and judgment (Meghani, 1999, MSU). Induction programme for teachers' classroom communication was found to be effective in improving interpersonal relationship, patterns of communication through transactional analysis training (Nyarondia Samuel Maragia, 2000, MSU).

Population Education

R. S. Dakariya (Bundelkhand University, 1993) conducted a comparative study of Population Awareness up to middle stage and the teachers trained by DIET in Bhopal.

Harshavardhan (Bunkelkhand University, 1995) conducted a study on Attitudes of Rural and Urban teachers towards Population Education.

The urban students have been found to have significantly higher knowledge of population education than rural students. The urban teachers have been found to have higher positive attitude towards population education than the rural teachers (Pradeep Kumar Agrawal, 2002, Rani Durgavati University, Jabalpur).

Technical Vocational and Arts Education

Two studies on technical and vocational educations have been reviewed which compared their educational status in different locations. Regarding comparative study of technical education of India and Germany, the findings revealed that the aims and objectives of technical education in India and Germany are same, except for the emphasis on profession and professional training in objectives of technical education.

Another comparative study on vocational education interests of Urdu and Marathi medium students revealed that no significant difference was found between the mean scores on the vocational interest of the Urdu and Marathi medium students. The jobs related to household and social and scientific fields were preferred by most of the girls in the sample (Rahat Sultana, 2001, BAMU, Aurangabad).

The studies on Art Education are few. One study reviewed under the section 'Art Education' is on developing Art Education Curriculum for secondary level. The study reveals that there are problems regarding infrastructure facilities, curriculum and its transaction. Struggle for naturalism is identified as one for the psychological needs of the adolescent group. The secondary students need not only qualified faculty to teach the subject but also facilities and opportunities to practice. The study revealed that the students had developed a positive attitude towards art education curriculum developed by the investigator (Parameswaran, 2001, MSU). Deepak John Mathew (2005, MSU) conducted a study of the Development and Effectiveness of an Instructional Strategy on Colour and Form for Design Education. This is an exploratory study which proved to be beneficial to both students and the design teachers alike.

Learning Disabilities and Mental Retardation

R. Sinha (University of Lucknow, 1993) conducted a study on 'Education for the Rehabilitation of Spastics: Identification of Potential Learners and Drop-outs among the Cerebral Palsied (Spastic) Children'. Pooja (KUK, 2004) studied the Arithmetic Error Profile of Learning Disabled children for improving their Arithmetic Skills. S. Devi (PU, 2004) studied the effectiveness of differential Remedial Measures to improve spellings of fourth graders with Learning Disabilities. D. Chauhan (PU, 2004) studied the effectiveness of different strategies for re-mediating dyscalculia in Primary School Children.

A. Varshney (University of Lucknow, 2004) studied the Cognitive Performance and Affective disposition of School children with Nutritional Anemia. M. Sharma (MSU, 2004) developed and tried out an intervention program for parents of children with Mental Retardation. R. Pandit (MSU, 2008) conducted a study on Effectiveness of Behaviour Modification Techniques in Children with Mental Retardation.

Special Education is a challenging task. It demands full identification with the children. Even software such as JAWS (Job Access with Speech) is not readily available for the visually handicapped. Compatible Kits are available for the hearing impaired and organically challenged. Designing Behaviour Modification Techniques for the Mentally Retarded is a highly skillful task. Even more challenging is to treat the children with learning disabilities, learning difficulties, visual handicap, hearing impairment, physical handicap, cerebral palsy, anemia, autism, all need special care and treatment. Inclusive education demands highly caring institutions, competent staff and congenial conditions. Teacher Education should make suitable provisions for all special children.

5.5.1 Recent Trends in China

Just as educational psychology theories have developed over the past ten years, progress has also been made with regard to research methods. The principal methods now used are the experimental method, the survey method and theory analysis. The survey method has developed quite rapidly and is being used on an increasingly wide scale. Rapid progress is also being made with regard to statistical methods. There are fewer and fewer research reports which do not provide statistics or which give only descriptive statistics and the use of deductive statistics is becoming increasingly the norm. There is also a clear trend towards the use of pluralist statistics. At the same time, the methodological aspects of educational psychology research are being explored.

In the past ten years, Chinese educational psychology scholars have undertaken a great deal of significant and creative research. Research topics include the psychology of teaching, moral psychology and differential psychology. Comprehensive research has also been conducted in the context of general educational reforms. This research mainly concerns research on the teaching aspect of educational psychology, research on moral psychology, research on differential psychology and cognitive research linked to general educational reform.

5.5.2 Trend towards Monitoring and Evaluation and the Role of UNESCO

Monitoring and evaluation of education are not in themselves new; educational research has largely been defined around them. What is new is both the interest of national policy-makers and the scope of their concerns, which extend to the entire education system or to entire sub-sectors of it such as basic education or higher education. Until very recently, most educational research had focused on small groups of pupils or students, often located in a single educational institution or handful of institutions; few studies aimed to consider the education system as a whole. This has begun to change.

Although more than a decade has passed since UNESCO last surveyed the situation worldwide, there are signs that more educational research is being carried out. At least, educational research has now taken root in many countries where ten or twenty years ago it was virtually unknown. Government financial support is still very modest; even in wealthy industrial countries the sums involved hardly compare

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to those allocated for research in other areas such as agriculture or health, let alone defence. Nevertheless, it is significant that even in countries where education budgets are very tight, some official support is given for educational research.

The World Conference on Education for All helped to bring to the fore the need for more research in the field of basic education in the world's less developed regions and the need too for increased support for co-operation among educational researchers in these regions. In response to the World Conference's call for countries to 'define acceptable levels of learning acquisition for educational programmes and to improve and apply systems of assessing learning achievement', UNESCO, in collaboration with UNICEF, has sought to strengthen national capacities in this field; a joint UNESCO-UNICEF Monitoring Learning Achievement Project involving five countries (China, Jordan, Mali, Mauritius and Morocco) was launched in 1992. In addition, established networks of co-operation, such as the Information Network on Education for Latin American and the Caribbean (REDUC) and UNESCO's Asia and the Pacific Programme of Educational Innovation for Development (APEID) were given a fresh impetus, and new networks such as the recently formed Southern Africa Consortium for Monitoring Educational Quality (SACMEQ), involving Botswana, Kenya, Malawi, Mauritius, Namibia, Swaziland, the United Republic of Tanzania, Zambia and Zimbabwe, have emerged.

Given the scarcity of funds available for educational research in the world's less developed regions, much of the research carried out in these regions necessarily is highly pragmatic and down-to-earth, focused on concrete obstacles or handicaps in the way of improving educational quality. In Africa, for example, many studies concern different aspects of textbooks: their cost (e.g. a study of parents' purchasing power with respect to buying school textbooks in Mozambique), their distribution (e.g. a study of the distribution and modes of utilization of school textbooks in Guinea) and their contents (e.g. an evaluation of textbooks for Arabic, French, mathematics and 'awakening to science' for fourth grade pupils in Tunisia).

The growth of educational research activity in the less developed regions has begun to lay the foundations of system wide mechanisms for the monitoring, measurement and evaluation of educational quality. A small but growing number of countries—up to now chiefly in Asia and Latin America—are beginning to set in place national systems of evaluation. In many countries, the poor state of national educational statistics has been a handicap.

It has been mainly among the OECD countries that the development of system wide mechanisms has gone furthest. These countries have given a high priority to improving the coverage, reliability and policy relevance of their national educational statistics, as well as their international comparability, and have co-operated with UNESCO for that purpose; this has been an area of concern to the Organization since its earliest days.

Much of the co-operation among the OECD countries has focused on the development of internationally comparable indicators of the various aspects of the quality and performance of their education systems: educational participation and attainment, education finance, students' learning outcomes, adult literacy, education

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and the labour market, the functioning of schools and school systems, and public attitudes towards education.

The indicators of learning outcomes have been drawn mainly from the studies carried out by the International Association for the Evaluation of Educational Achievement (IEA). These studies have mainly focused on cognitive outcomes; the most recent study—the largest conducted to date (forty-three systems)—focused on students' learning achievement in mathematics and science. The IEA studies have also collected a great deal of background information on students and teachers.

CHECK YOUR PROGRESS

11. What did the studies conducted on identification of deviant thinking patterns and clinical sessions reveal?
12. What did the findings regarding comparative study of technical education in India and Germany reveal?

5.6 PROBLEMS OF RESEARCH IN TEACHER EDUCATION

There has not been much headway in research since the researchers face a number of problems. More research is needed in the area of teacher education to be able to make qualitative improvement. Problems of research are both intrinsic and extrinsic to the researcher. Following are some of the problems of research in teacher education:

- **Lack of qualified personnel*:*** Researchers lack the minimum abilities and skills. It is important that researchers should gain knowledge of the theory of teacher education, skills of scientific inquiry, ability to analyse and interpret data and make rational judgments.
- **Lack of motivation*:*** This happens when researchers have no inclination and qualification to do research. The system fails to encourage them and utilize their abilities. There is lack of incentives to do research.
- **Lack of resources and facilities*:*** Many a times, there is lack of several adjunct conditions influencing research, for example, unavailability of expert advice for proper planning, or statistical procedures for analysing the data. Lack of material facilities such as hardware, stationary can also cause hindrances.
- **Problems of finance*:*** Due to lack of financial support or too many formalities in taking the research projects through the funding agencies is another problem. Fund agencies such as UGC, NCERT and ICSSR at times fail to make available finances.

- **Unpredictability:** Unpredictability in research means lack of significant relation among researches. Any research should be based on preceding research for its assumptions, hypotheses and theoretical background. Only then will there be any development in the discipline.
- **Need of consensus*:*** The number of researchers are as varied and many as the many views and priorities in education. Agreement of views is important as it will assist researchers to work within common theoretical purpose.
- **Need of coverage*:*** Lack of awareness in some of the areas of teacher education or differences in priority of the researchers hinder covering a large number of areas needing attention. As a result, many researches are done in one area only while other areas get neglected. For example, there are many studies on test construction or on teacher behaviour, or only on micro-teaching. A thematic research for balanced and even development is required

5.6.1 Suggestion on Methodology

There are more of quantitative studies than qualitative. The studies are scattered and unlinked. There is lack of continuity, cumulativeness and synthesis. Most of the studies are descriptive rather than preventive and ameliorative. There is a mixed scenario of Research in Education. Some of the observations are as follows:

- A large number of surveys have been conducted in education but the principles of objectivity, transparency and equivalence have not been adequately observed.
- In experimental research, the scholars largely move from induction to abduction, to thesis to analogy, to facts to theories. But inconsistent scattered researches lead us nowhere. Social laboratory is a myth and figment of imagination. It has become essential for the social scientists to evolve their own methods of investigation to sustain social life.
- In case study, research diagnosis of a case is as important as prognosis of its disposition. A large majority of us are comfortable in scribing the problems and cases, but prognosis is lacking. Here the presage, process and product variables all need to be treated very carefully.
- Naturalistic enquiry, which phenomenology demands, needs to be conducted in an open, naturalistic, parametric setting.
- Qualitative research cannot be conducted through prior samples. Sampling goes on throughout research, through various sampling techniques such as typical case sampling, intensity sampling, critical case sampling, sensitive case sampling, convenience sampling, primary selection and secondary selection. Qualitative Research cannot be conducted through static tools and techniques, because very often the researcher employing qualitative research methodology does not have a sound theoretical base related to the reality. Theory, in fact, is the product of enquiry.
- One of the basic tenets of qualitative research is awareness of one's own bias. There is a need to address diversity issues such as gender, race, religion,

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ability, sexual orientation and socio-economic status. The pursuit of knowledge should be conducted with sincerity and care.

- Critical theory takes, as a central concern, the issue of power in the knowledge context. It focuses on how and in whose interest knowledge is produced and passed on. Where are the funds floated? What is the interest? What is the return on investment?

5.6.2 Future Direction for Research

Following are some points that focus on future direction in the field of research:

- Surveys need to be conducted to estimate the number of teacher education institutions required countrywide, State-wise and Program-wise. Every State should be asked by the NCTE to conduct surveys and submit the estimates within stipulated time.
- Norms and standards for Teacher Education Programs need immediate revision.
- There should be added focus of Research on Historical, Economic and Philosophical Foundations of Education. There is a need to develop Human Resource in all these relatively neglected areas.
- The effectiveness of research conducted so far in the area of Educational Technology and ICT is reasonably established. But, the researches have failed to spur the system. There should be Research on Info-Savvy skills and techno-pedagogic skills.
- Purpose of a large number of presentations is overpowered through power point presentations. Approaches such as Dialogue Approach should be well integrated in teacher education.
- There should be due focus on learner-centered activities. Constructivist approach should be employed both with Information Given and Beyond Information Given. There is a need to move from Behaviorist Model to Communication Model to Interactive Models. Also, there is a need to move from Cognitive Approach to Socio-Cognitive Approach. Rather than going by monolingual models, we need to evolve multi-lingual models. There is a need to develop programs to realize the above objectives. The effectiveness and efficacy of all these programs needs to be studied.
- There should be more studies on Human Rights Education, Health and Hygiene, Life skills Education and Environmental Education. Continuous and comprehensive Evaluation, Right to Education, Impact of government schemes on teacher education.
- The qualitative research methodology needs to be employed more rigorously. Rather than re-coursing to the old theories, there should be added focus on grounded theories. Participatory research with service motive needs to be strengthened.

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- There should be due scope for self-evaluation, peer evaluation, group evaluation, teacher evaluation, school evaluation and community evaluation in Teacher Education programs. There should be research on the related factors contributing to comprehensive evaluation.
- Teacher Education should seek the resources of all sectors—public and private. Unless and until all sectors cooperate, Teacher Education programs and courses cannot be offered. Courses such as Environmental Education, Guidance and Counseling, Health and Yoga Education, ICT in Education definitely demand services of the Corporate Sector. The market forces should emerge as educational forces. There should be research on the relative contribution of these sectors for the realization of the objectives of teacher education.
- Teacher Education Institutions can hardly afford to function in isolation, both within and among. Inter-disciplinarily and multi-disciplinarily should be practiced by the TEIs. The interdisciplinary and multi-disciplinary research should be promoted in Teacher Education.
- There should be suitable programs for the In-Service education of teachers and teacher educators.
- Innovative Teacher Education Programs such as Personalized Teacher Education need to be institutionalized for the realization of holistic Teacher Education through flexible time management, variety of modes of learning, Diversified and participatory Evaluation, Personalized Environment, Learner Freedom, Teacher as a facilitator, Organizer and Inspirer and Field Linkages.
- There should be differential inputs in Teacher Education programs. There should be suitable inputs corresponding to the differences in the IQ, Learning Styles, Languages, Interests, Abilities, Cultures, Maturity levels and other conditionals of the learners.
- Networking should be established with central level agencies working in the area of Teacher Education. They are Teacher Education unit in the MHRD, National Council for Teacher Education (NCTE), National Council Educational Research and Training (NCERT), University Grants Commission (UGC). There are other supporting institutions like National University of Educational Planning and Administration (NUEPA), Central Hindi Institute (CHE), Central Institute of English (CIE), Central Institute of Indian Languages (CIIL), Directorate of Adult Education (DAE), and Rehabilitation Council of India (RCI).

CHECK YOUR PROGRESS

13. What happens in experimental research?
14. What is meant by unpredictably in the field of research?

5.7 SUMMARY

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- India has one of the prime systems of teacher education.
- The programmes are almost identical though the standard varies.
- Even when research knowledge attracts the attention of policy makers in education, they treat it as information to shape a particular policy, or use it to justify an unpopular decision, cut funds, or may dismiss the research conclusions which are ambiguous to their beliefs.
- Conceptualizing may not entail verification since many paradigms are imaginary in nature.
- When there is dissatisfaction with the present practices in teacher education, changes may be needed in the structure as well as the processes of teacher education.
- During the seventies, research in teacher education were mainly in areas, such as selection criteria, qualities and abilities of a teacher, pre and in-service training of teachers, work load, job expectations, procedures and practices of teacher education in India and personality variables of teachers.
- The studies on outcome of teacher education include two types of variables—direct outcome of teacher education.
- The process of cultural borrowing greatly influences the structure and conduct of teacher education as well as the substance and design of the research.
- In the milieu of 'Sarva Shiksha Abhiyan', in respect to elementary education, universalization of Secondary Education and further strengthening of higher secondary education, teacher education needs to be strengthened.
- Out of the four independent variables—teaching aptitude, language ability, general mental ability and social sensitivity—teaching aptitude and language ability have been found to be contributing most to educational competency.
- Undoubtly, our system of studying philosophy is good to understand the inclusive nature of specific philosophy, but it prevails only in the traditional system of philosophical practice.
- In the views of the Sikh Gurus, it is essential that there should be overall development of man encompassing mental, intellectual, moral and spiritual horizons.
- Scientific attitude, gender equality, national integration, respect for all religions, cleanliness, humility, sensitivity, punctuality, dignity of labor, patriotism are some of the values identified and confirmed from preaching of *Gramgeetha*.
- Scientific attitude, gender equality, national integration, respect for all religions, cleanliness, humility, sensitivity, punctuality, dignity of labor, patriotism are some of the values identified and confirmed from preaching of *Gramgeetha*.
- The diverse philosophy of all the philosophers should be the basis of education.

- From 'Escola Normal' during the Portuguese Goa (1841-1961) to the proposal for Teacher Education in 2008, India is an eyewitness to a large range of teacher education programs.
- In 2011, Parviz Mohammad Salahi Azami conducted a comparative study 'Education in India and Iran' with a reference to the period between 1565 and 1665 and found that the aim of primary education was to teach alphabets and religious prayers.
- Some studies on Applied Psychology have been found to have desirable results in various areas of guidance and counseling.
- There are wide differences between the laboratory conditions of teacher education institutions and field conditions.
- Researches have demonstrated the effectiveness of various models of teaching such as CAM, ITM, and AOM. Education programmes for enhancing emotional intelligence of student-teachers have been found to be successful in terms of raising the EQ levels.
- The findings of several studies have confirmed that the teachers have problems of mental health, job satisfaction and job stress.
- K. S. Shakunthala (Bangalore University, 2001) conducted a study of the adjustment of Secondary School Teachers in relation to their Teaching Competency, Emotional Maturity and Mental Health.
- All these studies have contributed to the knowledge base o teacher education significantly, but, there is a need to systematically work out the admission criteria into various teacher education programmes.
- There have been very few studies on developing language learning strategies and learner autonomy through web blogs. Blogs not only provide teachers with an exciting new way to approach communicative language learning, but also give students a new reason to enjoy reading and writing.
- A study on the Science curriculum transaction in secondary schools of Baroda city revealed that teachers are not clear about values of Science (P. S. Umashre, 1999, MSU).
- Video film on Environmental Pollution was found to be effective in eliciting students' positive response.
- Awareness in the Students of Std. IX. Environmental Education needs to be institutionalized in teacher education very intensively.
- One of the basic tenets of qualitative research is awareness of one's own bias.
- Teacher Education Institutions can hardly afford to function in isolation, both within and among. Inter-disciplinarily and multi-disciplinarily should be practiced by the TEIs.

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5.8 KEY TERMS

- **Paradigm:** It means a typical example or pattern of something.
- **Cumulativeness:** It refers to something increasing or growing by accumulation or successive additions
- **Stipulated:** It means to demand or specify (a requirement), typically as part of a bargain or agreement.
- **Efficacy:** It means the ability to produce a desired or intended result.
- **Ameliorative:** It means to make or become better, more bearable, or more satisfactory.

5.9 ANSWERS TO 'CHECK YOUR PROGRESS'

1. Conceptualizing means arriving at unified set of variables.
2. Six stages of studying philosophy in the Indian system are:
   - *Padartha*
   - *Pramana*
   - *Vada*
   - *Atma*
   - *Shrishti Prakriya*
   - *Moksha*
3. Guru Arjun Dev visualized 'Guru' as the one who can lead the disciples on the path of reality.
4. In views of the Sikh Gurus, a teacher should provide insight to his pupils to awaken their consicence, so that they are in a position to discriminate between *Paap* and *Punya*.
5. In India, 11 November is celebrated as National Education Day.
6. B. K. Pal found through his research that female teachers were more adjusted in the teaching profession.
7. D. T. Reddy conducted a critical study of the professional pleasure in relation to creativity and change proneness among secondary school teachers.
8. One major innovation in the field of teacher education has been that a number of schools have started smart classes and installed various new electronic equipment within the classroom.
9. Attempts have been made by the Intel 'teach to the Future' in integrating ICT in teacher Education at pre-service and in-service levels.
10. A study on development of science education in Nagaland concluded that more than half the total number of science teachers were of the opinion that the objectives of science education were not clear to them.

11. Some studies conducted on identification of deviant thinking patterns and clinical sessions thereof revealed that thinking patterns can be changed through counseling in a relatively short period of time.
12. Regarding comparative study of technical education of India and Germany, the findings revealed that the aims and objectives of technical education in India and Germany are same, except for the emphasis on profession and professional training in objectives of technical education.
13. In experimental research, the scholars largely move from induction to abduction, from thesis to analogy, and from facts to theories.
14. Unpredictability in research means lack of significant relation among researches.

5.10 QUESTIONS AND EXERCISES

Short-Answer Questions

1. What are the two variables included in the studies on outcome of teacher education?
2. List the various studies that focus on the economics of education in India.
3. What are some of the studies that focus on job satisfaction of teachers and performance in India? Briefly illustrate some of the major points that these studies focus on.
4. Briefly explain how qualitative research is conducted.
5. What were some of the findings of a study conducted on 'Art Education'?
6. What were the findings of some of the studies conducted regarding teaching methods in India?
7. Write a short note on the recent trends in research in China.

Long-Answer Questions

1. Explain the philosophy of the Sikh Gurus regarding teaching and pedagogy.
2. What is meant by historical foundations of teacher education in India?
3. Explain the sociological and psychological foundations of teacher education in India.
4. How do psycho-social factors impact teaching? Discuss with reference to some of the studies that have been conducted on this topic within India.
5. Analyse the future direction in the field of research necessary for teacher education.
6. List and explain some of the problems of research in teacher education.
7. What are some of the emerging issues in the field of education?
8. Describe the role played by UNESCO in monitoring and evaluating education.

5.11 FURTHER READING

NOTES

Mohan, Radha. 2011. *Teacher Education*. New Delhi: PHI Learning Private Limited.

Kishan, N. Ramnath. 2007. *Global Trends in Teacher Education*. New Delhi: APH Publishing Corporation.

Beck, Clive; Clare Kosnik. 2006. *Innovations in Teacher Education: A Social Constructivist Approach*. Albany: State University of New York Press.

Harvard, Gareth Rees; Phil Hodkinson. 1994. *Action and Reflection in Teacher Education*. New Jersey: Ablex Publishing Corporation.

Popkewitz, Thomas S. 1993. *Changing Patterns of Power: Social Regulation and Teacher Education Reform*. Albany: State University of New York Press.

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