

# Teacher Education

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# Teacher Education

## Meaning of Teacher Education

Teachers are significant pillars of societal development. There was a time when teacher education meant that any person who knows the subject matter could be a teacher. These people will take a short course in mechanics of classroom management, record keeping, reciting communication and become teachers. Nowadays, a sound teacher must have knowledge about pedagogy, attitude, traits, personality and exceptionality of children. Thus, teacher education is the professional preparation of a person into a teacher.

The quality and the extent of a learner's achievement are determined by the competence of the teacher and the motivation provided by him. It is the formal program that has been established for the preparation of teachers at the elementary and secondary school levels. It refers to the policies and procedures designed to equip teachers with the knowledge, attitudes, behaviours and skills required to perform their tasks effectively in the school and classroom.

Teacher education helps in the development of teacher's proficiency and competency. This would enable the teachers to meet the requirements of the profession.

Between 1906-1956, teacher education was called 'teacher training'. But, it was not a broad subject and prepared the teacher as mechanics or technicians. The focus was on skill training, only.

According to **NCTE**, teacher education is defined as "A programme of an education, research and training of persons to teach from pre-primary to higher education level".

## Elements of Teacher Education

Teacher education consists of teaching skills, sound pedagogical theory and professional skills. These are as follows

**Teaching Skills** It includes giving out training and practice for the field of teaching. That may encompass techniques, approaches and strategies. This would help teachers to plan and impart instruction and conduct effective assessment. This can be done through classroom management skills. That also includes preparation and use of instructional material.

**Pedagogical Theory** For teaching in a classroom, this enables teachers with philosophical, sociological and psychological skills. The theory differs from place to place. It is dependent upon the participants

**Professional Skills** Various techniques, strategies and approaches are employed by teachers to grow in the profession. This also facilitates the growth of the profession. They include skills like counselling skills, interpersonal skills, computer skills, information retrieving and management skills.

These aspects provide a Holistic approach towards teacher education.

## Objectives of Teacher Education

School system has emerged and puts pressure on teacher education, making it sensitive. Thus, now the teacher have to be prepared for the following roles

- Teachers need to be encouraging, supportive and human. They need to encourage the learners, help them to discover their talents. This leads to the realisation of their physical and intellectual potential to the fullest. Thus, developing a character with desirable, social and human value.
- Developing Self-Confidence of the Teacher Teacher education helps the teacher in self care by
- Teachers are also meant to be an active participant, who contributes to renewal of school curriculum. They should update it, according to the recent developments, and keep it relevant to the learners. It should be guided by the past experiences and changing national development goals.

These factors show that a teacher needs to be responsive and sensitive to the context of education. To meet these expectations, *teacher education should be comprised of the following objectives*

**Adequate Knowledge of Subject Matter** It is expected to the teacher to know the subject given to him.

**Equipping the Teacher with Required Pedagogical skill** The teacher should be able to create an emotional atmosphere. He or she should be equipped enough to stimulate an experience under an artificially created emotional atmosphere.

**Enabling the Teacher to Acquire Child Psychology Skill** The teacher should be able to understand child psychology. As such he/she may know the difficulties faced by child and help to overcome it.

**Development of Teaching Attitude** To maximise the potential of material and human resources, a teacher should have proper attitude.

- adjusting to physical conditions,
- fruitful adjustment with the social environment.
- self-adjustment to get emotional satisfaction.

**Enabling Teachers to Make Use of Instructional Facilities** The teacher should be available to expand school resources by improvising an instructional facilities,

**Enabling Teachers to Understand Individual Differences of Child and Optimise their Development** Teacher education tries to solve the difference within individual. Thus, the teacher can treat his learner as his peer.

**Development of Abilities to Give Direct Satisfaction to Parents** Proper habits of children is developed by the teacher. It includes taking care of oneself, progress in the class and positive attitude. This is especially important for teachers in an elementary school.

## Nature of Teacher Education

- Teacher education is a life-long process. It consists of pre-service, induction, and in-service stages. The three stages constitute the continuous process of learning.
- 'Teachers are made not born.' Teaching is both a science and an art. The teacher cannot only rely on an education itself. He/she has to learn the tricks of trade and adapt according to situations.
- Teacher education is very broad. Apart from pre-service and in-service programmes, a teacher is expected to participate in various other programmes as well. This may include community programmes and extension activities like literacy and development activities of the society.
- Teacher education is constantly evolving. So, in order to prepare teachers with recent times, teacher education needs to be updated on a regular basis. .
- The core of teacher education lies in its curriculum, design, structure, organisation and transaction modes.
- The curriculum for teacher education is sensitive to field application. It comprises blending of theoretical knowledge with several other disciplines. It is a sum part.
- Teacher education is divided into different levels. It includes elementary, pre-primary, primary, secondary, higher secondary and tertiary level. The student and teacher will be given knowledge, according to their respective level. Thus, the curriculum is designed as such that the knowledge is divided between the levels.
- In teacher education, there is input from the learner, the process of learning that the student and teacher goes through and there is output in the form of new students.

## Scope of Teacher Education

Scope of teacher education means an opportunity and application of the subject. Scope of teacher education can be understood in the following ways

### Teacher Education at Different levels of Education

All the levels of an education, i.e. pre-primary, primary, elementary, secondary, higher secondary and tertiary, requires teachers. The knowledge required by teachers at each level varies. Thus, stage and level specific education is needed. Teacher education is also needed

for teaching students to be a teacher. This is done in professional institutes. Here, the teacher requires specific training to deal with the students. Thus, where there are teachers, there will be a teacher education.

## Triangular Basis of Teacher Education

Creating a knowledge base for teachers requires a lot of academic and intellectual understanding. This involves selection of theoretical knowledge from disciplines cognate to education, namely, psychology, sociology and philosophy and converting it into forms suitable for teacher education. These disciplines provide the base for better understanding and application of teacher education.

**Philosophical basis** provides the students, teachers with various schools of philosophy, ancient and modern philosophical thoughts, educational thoughts of philosophical thinkers. **Sociological basis** helps the student to understand the role of society and its dynamics in the country.

**Psychological basis** helps the teacher to understand student's psychology. This benefits both the student and the future learners.

## Aspects of Teacher Education

Teacher education is guided by aspects of teacher education, student teacher, content and teaching strategy.

Teacher education is dependent on the quality of teacher education. The use of pedagogical inputs in teacher education and their utilisation to help future teachers is dependent on the teacher's education. The main scope of teacher education is to provide student teachers with relevant knowledge, attitude and skills. Thus, the student teacher needs to be fully equipped with conceptual and theoretical framework, so that they can know the minute details of the profession. This enables them to carry on the function of being a teacher efficiently.

## Types of Teacher Education program

Teacher education program can be of various types, but it is divided broadly into following three categories

### Pre-Service Training

Pre-service training of a teacher starts before their teaching job. After completing the pre-service training, a student teacher becomes the teacher. The main need for pre-service training is that the student teacher must understand the role of teacher. This equips the student teacher with necessary skills and competencies to become a teacher.

It imparts an inclusive education as well. This may consist of school visits, classroom observations and practical assignments. Inclusive education is a big part of pre-service training.

## Objectives of Pre-Service Training

- To provide teachers with proper understanding regarding the aims and objectives of education.
- To promote in prospective teachers a proper understanding of the basic principles of child growth, development and process by which pupil learn.
- To enable them to plan and present subject-matter in a manner which will promote the interest, sense of purpose and an understanding process of pupil's growth.
- To develop communication and psychomotor skills and abilities conducive to human relations for interacting with children in order to promote learning in them, both inside and outside the classroom.
- To develop understanding, interest, attitude and skill which would enable him/her to promote all round development of children under his/her care.

## In-Service Training

It is basically for teachers who are already working. The training can be done in many forms like

- two weeks intensive training.
- weekly/monthly session over a period of time.
- several intensive training sessions during a longer period.

It can be done by a group of teachers from different schools or a whole team of teachers in one school.

## Objectives of In-Service Training

- To provide professional training and qualification to untrained working teachers. Though most of the working teachers have background training, some may lack it. For them, in-service training is important.
- To upgrade the qualification of the currently serving teacher. The teacher education gets updated and renewed continuously. So, in-service training should help in this matter.
- To arrange refresher courses to familiarise teachers with modern practises being encouraged in school. The teacher should be able to handle modern teaching material like audio-visual aids.
- To improve the quality of teacher education, there is growing emphasis on the need for continuous training of teacher education themselves.

## Distance Learning/Self-Study

Distance Learning/Self-Study Distance learning of teacher education is for the teacher who cannot attend training events. There is a flexibility of time and place which is a win-win situation for working adults.

There is a separation between the teacher and learner in case of distance education. This separation is fused with the help of DVDs, podcasts and online lectures.

Distance learning has its benefits, only if

- appropriate methods are used.



- regular teacher-learner interaction is there.
- The learners are provided with valuable feedback.

### Objectives of Distance Learning

- To provide an effective alternative path to wider opportunities in education, especially in higher education.
- To provide an efficient and less expensive education.
- To provide education facilities to all qualified and willing people, who can't join regular university and other courses for various reasons.
- To provide an opportunity of an academic pursuit to educated citizens, who are willing to improve their knowledge.

### Pros and cons of Pre-service training, In-Service Training, Distance learning

	Pros	Cons
Pre-Service Training	<ul style="list-style-type: none"> <li>• Student are already trained and are pro towards inclusive education.</li> <li>• Approach of teaching can be influenced of student teacher.</li> <li>• Less resistant towards new ideas.</li> </ul>	<ul style="list-style-type: none"> <li>• The student teacher have little or no experience.</li> <li>• Student teachers are not being given adequate preparation at present in this area of competence.</li> <li>• They lack in cooperation, once they start working.</li> </ul>
In-Service Training	<ul style="list-style-type: none"> <li>• The teachers are able to practice what they have learnt.</li> <li>• Learners have lot of experience that can be related to.</li> </ul>	<ul style="list-style-type: none"> <li>• Some resistant must be there as the learner can be stringent teacher.</li> </ul>
Distance Learning	<ul style="list-style-type: none"> <li>• Learner can learn at their own place.</li> <li>• The time duration and the location of the course taken is not fixed.</li> </ul>	<ul style="list-style-type: none"> <li>• Requirement of an electronic media or an internet, which is not always present.</li> <li>• Basic computer skills are needed.</li> <li>• Required feedback is not frequent.</li> <li>• Lack of human contact may result in demotivation.</li> </ul>

### Structure and vision of Teacher Education curriculum

The structure of teacher education is the foundation on which teacher education programmes are formed. The design, enactment and assessment of teacher education unavoidably reflect the structural anatomy on which programmes are built. According to NCERT, "The structure and vision of the teacher education curriculum must provide an understanding of issues relating to children's learning, the nature of

knowledge and the school as an institution. NCERT is an apex educational body that strives to achieve the aim of enhancing school education and teacher education. Another statutory council i.e. National Council for Teacher Education (NCTE) by an Act of Parliament in 1993 is committed to initiate suitable measures to make teacher education responsive to various levels of development and change. The agenda of NCTE is to remove and minimise the existing deficiencies of teacher education and to meet the demand of new challenges before it.

The recent effort to modify teacher education curricula to meet contemporary requirements has been initiated by the NCERT in the context of the recommendation of the committee

appointed by it to review teacher education programmes offered in RIES (Govinda committee). The committee highlighted the interdisciplinary nature of education and recommended that, a systematic exercise needs to be undertaken to identify fundamental concepts with a view to

- highlighting connectivity among these concepts linked to teaching-learning processes and practises.
- focusing on the distinct nature of education as an area of study with its emerging and evolving inter-disciplinary knowledge base and its epistemology.

Teacher education curricula should therefore, allow space for the teachers to introspect, reflect on their own practises and become agents of change. In Spite of the thrust of various curricular reform efforts to evolve stage-specific curricula for school education, there is a considerable mismatch in practice.

### Vision for Teacher Education

- According to NCTE, teacher education must become more sensitive to the emerging demands from the school system.
- For this, it has to prepare teachers for the role of being an encouraging, supportive and humane facilitator in teaching-learning situations to enable learners to discover their talents and realise their physical and intellectual potentialities to the fullest.
- Teacher education must engage with theory along with field experiences to help trainees to view knowledge not as external to the learner but as something that is actively constructed during learning. Teacher education should integrate academic knowledge and professional learning into a meaningful whole
- Teacher education should engage teachers with the curriculum, syllabi and textbooks to critically examine them, rather than taking them as 'given' and accepted without question.
- Teachers need to be trained in organising learner-centred, activity based, participatory learning experiences, play projects, discussion, dialogue, observation, visits and integrating academic learning with productive work. To
- Teacher education programmes need to broaden the curriculum (both school and teacher education) to include different traditions of knowledge, educate teachers to connect school knowledge with community knowledge and life outside the school.

### Teacher Education at Elementary Stage

Vision for teacher education at elementary stage includes

- Teachers must possess knowledge of the first and second language, maths and the topics related to social and natural science.
- Teachers must have the ability to identify, select and organise learning experiences related to subjects mentioned.
- Teachers must have theoretical and practical knowledge of child health, physical and recreational activities, games, creative art, and music.
- Teacher must know major psychological principles related to growth and development of children under his/her care
- Teachers must possess theoretical and practical knowledge in respect of childhood education.

- Teachers must know major principles of learning in terms of formal and informal situations.
- Teachers must understand the role of school, the peer groups and community, in shaping the personality of the child.
- Teachers must know the role of school teachers in changing society.
- Teachers must be aware of the nature, purpose, and problems of an elementary education.
- Teachers should understand the nature and maturity of the children. This is important to impart education and ensure many sided development.
- Teachers must develop a holistic approach to understand and solve the problems of life.

### Teacher Education at Secondary Stage

Teacher education at secondary stage consists of teaching specialised subjects. Teachers after completing their teacher education must have following traits

- Depth of understanding to the concept of specific discipline.
- Know the ways through which the adolescent learns.
- Understand the concept of work and experience.
- Possess the skill to teach.
- Able to develop understanding, skill, interest and attitude which will help the all around growth of the child.
- Understands the concept of personality and personality development.
- Possess communication, mental and social skills to interact with the pupils.
- Know the structure and functioning of various body systems.
- Know the role of physical education, games, recreational activities for the betterment of adolescent health.
- Shows interest in the development of a child.
- Develop skills in guiding and counselling the learner in academic and vocational subjects as well as in academic and personal problems.

### Teacher Education at Higher Secondary Stage

Vision for the teacher after completing teacher education for higher secondary stage includes :

- Development of perspective for specific streams among the teachers.
- Able to guide the learner and prepare them for self-study, independent learning, critical thinking and self-evaluation.
- Make the student aware of the philosophy, purpose and teaching-learning strategies of the subject they have to teach.
- To be able to communicate abstract and complex ideas in simple terms.
- Develop patriotism and national consciousness . among the learners.
- Sensitise the student about HIV/AIDS, and bring attitudinal change in understanding problems related to healthy life.

## Components of Pre-Service Teacher Education

Pre-service teacher education means education of a teacher before entering into the service as a teacher.

- In India the requirements for what qualifications are needed vary from state to state and can vary again depending on whether their plan is to be a primary or secondary school teacher. While the composition of . pre-service programmes may differ, they generally share common components.
- Subject-content knowledge.
- Pedagogic content knowledge (teaching methodology and assessing learning).
- Understanding how children learn (cognitive and social development).
- Teaching practice (opportunities to practice teaching usually under some form of supervision from a senior).
- Teachers often value their pre-service training as it can instil confidence, raise their awareness of what is involved in being a teacher and give them a new discourse with which to successfully enter the teaching profession.

## Organisation of Components of Pre-Service Teacher Education

Organisation is a means to bring the plan into existence. It is directly connected with the planning and efforts of the people. It is a medium through which teaching goals and objectives are achieved.

*Components of pre-service teacher education should be organised in the following manner*

**Determining Objectives** First of all, the teacher determines the teaching objectives according to the psychology of pupils and needs of school and society. Teacher tries to understand how children learn as per their cognitive and social development.

**Subject Content Knowledge** Subject knowledge has a very important role to play because high-quality teaching rests on teacher understanding, the subjects they are teaching, knowing the structure and sequencing of concepts, developing factual knowledge essential to each subject and guiding the students in different ways.

**Pedagogic Content Knowledge** Teachers use their subject knowledge base for decision-making and what they are going to do. Sound teacher subject content knowledge positively affects decisions to change pedagogical strategies assessment, implementation of curriculum and curriculum development. on

**Teaching Practice** It is an opportunity for aspiring teachers to experience working with students in actual classrooms and acquiring professional competence. It is a practical experience for the pupil-teacher to meet the requirement of a degree in education.

## Transactional Approach

In this process, a situation is created, where students can interact with the material to be learnt in order to construct knowledge. In this policy, constructivism is related. The knowledge is not spooned but instead, it is built by students as they connect experience with new knowledge.

As the student's past experience is different, so is the interpretation. Teachers assist the learner in construction of knowledge rather than pouring the knowledge.

For foundation courses, three kinds of transactional approach i.e. Expository method, collaborative learning and experiential learning

## Expository Method

In this method, a comprehensive topic or subject matter is explained or interpreted. The teacher leads the discussion, and guides the lesson. He/she can ask the questions from the student. It is more popular because it is more efficient and takes less time than discovery learning.

## Applications of Expository Method

- When an important information is needed to make the class understand
- When previous knowledge of the learner is lacking, time can be saved by the teacher telling the part.
- An idea or the principle can be learned only by explaining
- Induction may take too much time and its difficulty may outweigh its value.

## Steps of Conducting

Expository teaching includes various steps and they are as follows

- Expository teaching begins with an introduction and overview of the topic before providing more specific information in detail.
- The teacher focuses the student's attention on the key points of the subject and may use graphics, diagrams or Other representations to elaborate on the subject.
- It moves from general to specific and allows students to understand the increasingly detailed explanations of the information and link those explanations to information that was presented previously as a part of general overview.
- Teacher instructional strategy is designed to assist students in the acquisition of relatively factual material. This technique is facilitated by the use of pre-instructional verbal statements and the sequencing of the content use

## Tools for Exposition

To make exposition clear, following tools can be used

- Analogies and stories
- Illustrations
- Models
- Demonstrations

- Outlines and summaries
- Diagrams

## Collaborative Learning

As the name suggests, the teaching and learning process, which involves a small group of learners working together to solve a specific problem. In this, learners are working in a group of two or more, collecting useful material and knowledge.

Active learning is the superset of collaborative learning; which involves talking, listening, writing and reading with individual involvement in the learning pedagogy. The concept of collaborative learning evolved from 'virtual classroom, where people h

### Objectives of Collaborative Learning

- In collaborative learning, learners can reach each other to solve problems, can share knowledge and resources, can build team skill and lead toward deeper understanding.
- Collaborative learning environment lets the members solve many complex problems and share expensive resources.
- It increases productivity towards the common goal in terms of improving learning skills and generating knowledge in a group.

### Approaches for Collaborative Learning

- Integrate the information and relate this and generate new knowledge.
- Identify the needs of the peer, process it and produce information which is needed by peers.
- Making healthy discussion as the team may comprise different background members.

### Advantages of Collaborative Learning

- Promotes critical thinking skills.
- Building and giving away knowledge.
- Exchanging, debating and negotiating ideas
- Active thinking process of the learner.
- More achievements and greater productivity.
- Develops social interaction skills.
- Highly communicative and discussion skills.
- Multi-dimensional problem-solving skills.
- On demand interaction and support.

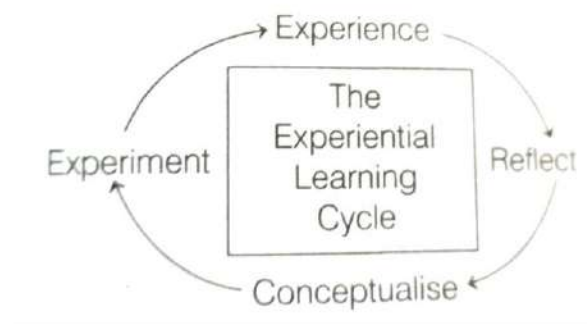
## Experiential Learning

When learning is facilitated by experience, then it is known as experiential learning.

The concept of experiential learning was first explored by John Dewey and Jean Piaget, among others. It was made popular by education theorist David A Kolb, who along with Ron Fry developed the Experiential Learning theory, which is based on the idea that learning is a process, whereby knowledge is created through the transformation of experience.

Experiential Learning theory is a learning theory developed by David A Kolb, who published his model in 1984. His theory works on two levels i.e. a four stage cycle of learning and four separate learning styles. Kolb's theory has a holistic perspectives which includes experience, perception, cognition and behaviour. The learning cycle basically involves four stages i.e. concrete learning, reflective observation, abstract conceptualization and active experimentation. Kolb's learning styles include diverging, assimilating, converging and accommodating styles of learning.

## Experiential Learning Cycle



**Concrete Experience** It is the personal experience that a learner already possesses. This experience could be anything from a learner's life which can be used to help the studying process.

**Reflective Observation** Next step is to put learners' experience to use, the learner needs to reflect on the experience. Learners ponder over their experience.

**Abstract Conceptualisation** Once the learner has reflected on the experience, he/she needs to know what can be done differently. This makes it easy to learn as the learner is taking clues from his/her own experience.

**Active Experimentation** This is where learners put an idea into use. This is an application based process and shows how well the student has learnt.

## Importance of Experiential Learning

**Makes Learning Relatable to Participants** Participants build on what they already know and are provided with opportunities to make connections between new concepts and existing ones.

**Increases the Effectiveness of Learning** Participants engage in critical thinking, acquire problem-solving skills and engage in decision-making.

**Links Theory to Practice** Participants have the chance to engage in the experience and practice what they have learned, see the application of the theoretical concepts in practice, process that application and make generalisations.

**Assists in Memory Retention** By building strong relationships between feelings and thinking processes, participants have the capacity to learn successfully when the information is associated with values and feelings.

**Leads to Development of Skills for Lifelong Learning** By assisting in the acquisition of essential skills and encouraging participants to reflect, conceptualise and plan for next steps.

## Methods of Experiential Learning

**Field Trips** It is a brief observational activity that occurs outside the classroom doors. This offers a real opportunity of experience.

**Narratives Specific** and sensory details provided by the author to get the reader involved into the story.

**Experiments** Proving a hypothesis correct or wrong by trial and error method. Experiments tell the learner about cause and its effect.

**Simulation** The teacher controls an artificial world to achieve desired results.

**Games** It provides children to work out their feelings while playing. It builds social skills.

**Story-Telling** Conveying events in words and capturing the moment to immortalise it.

**Focussed Imaging** Imaging exercises, nurture and develop students' creative potential. The student relaxes and experiences the situation first hand.

**Role Playing** Students act as a character in a pre-defined situation. This helps the student to understand the concerns and values of other people.

**Model Building** It involves creation of models, either from kits or from component from a builder,

**Surveys** It is a method of gathering information and interpreting it.

## Models of Teacher Education

### Teacher knowledge

Every profession has a body of knowledge that set it apart from others and makes people who master such skills considered suitable professionals to exercise the profession. Interestingly, for the profession that educates all other, the teachers, there is no consensus about the body of knowledge necessary to be a teacher, even about its existence. Common sense is that a teacher just knows some specific content. Consequently, the widespread idea that other skills are not needed beyond the specific content to be a teacher. This situation makes the teacher profession often a temporary one and shows inconsistency between the social and economic depreciation of the profession with the responsibility and training required. Although, knowledge of the specific content is the primary task of being a teacher, your domain is only part of the story, since specific skills for teaching are long recognised as necessary.

Conceptualising teacher knowledge is a complex issue that involves understanding key underlying phenomena such as the process of teaching and learning, the concept of knowledge, as well as the way teacher's knowledge is put into action in the classroom. The conceptualisation of knowledge base was restricted to the attainment of the basic skills required for teaching, the competency of educators in their subject matter area, and the use of pedagogical strategies. However, there are other variables that are critical in teaching, i.e. the classroom context, the physical and psychological characteristics of the learners, the personal and practical experiences of teachers, their reflective practises and research skills.

An effective teacher needs to master at least two types of basic knowledge, i.e. content knowledge and pedagogical knowledge. The former refers to the knowledge that a teacher should possess in the subject itself, while the latter refers to the teaching and learning of subjects and their curriculum.



## Knowledge Base of Teacher Education

A knowledge base is a technology used to store complex information, by the use of a computer system. Generally, it is a centralised database, more like a public library.

In teacher education, it is linked to profession, related to insight, relevant for teaching profession. This knowledge is required for teacher's activities. Thus, it is said that a teacher's practical knowledge should be added to the knowledge base, along with formal knowledge. Teacher knowledge may be different, due to their different life experiences. But some elements are shared by all. Thus, teacher's knowledge can be used to make educational innovation and improve teacher's education

Let us discuss the knowledge base of teacher education from the viewpoint of Schulman, Habermas and Deng and Luke.

### Schulman

**Lee S Schulman** is an American Educational Psychologist. He has made notable contributions to the study of teaching, assessment of teaching, and the fields of medicine, science and mathematics. He is credited with popularising the phrase 'pedagogical content knowledge' that includes pedagogical knowledge and content knowledge'. He had a long and deep association with professional education. With collaboration from Arthur Elstein, a colleague in medical school, he conducted a study of medical decision-making. Here, he studied the thinking of medical diagnosticians as they performed clinical diagnostics.

In 1986, Schulman and Sykes defined the knowledge base for teaching as "The body of understanding and skills, device and values, character and performance, that together constitutes the ability to teach".

They listed eight categories involving this base and they are Knowledge of learners and their characteristics.

- General liberal education, including basic skills for reading, maths, writing and reasoning.
- Content knowledge in the domains in which teaching will occur.
- Content-specific pedagogical knowledge.
- General knowledge of pedagogical principles and practises.
- Curriculum knowledge.
- Understanding of student diversity and individual differences.
- Foundation of professional understanding (including history and policy, philosophy and psychology, cultural and cross-cultural factors and professional ethics).

In the same year, Schulman (1986) also proposed three categories of content knowledge for teachers, saying that "The content has different facts to the teacher who has to consider content knowledge itself, the pedagogical content knowledge and curricular knowledge". And so the Pedagogical Content Knowledge (PCK) expression was launched by Schulman and apparently came to mean a special kind of knowledge of teachers who had not previously served by any name.

According to **Schulman** (1986), "Content knowledge includes knowledge of concepts, theories, ideas, proofs and evidence as well as practises and approaches to develop this knowledge. While, the pedagogical knowledge includes the educational purposes, the methods of teaching and learning, that is knowledge about techniques or methods used in the classroom, the nature of the target audience and strategies for assessing student's knowledge". In general, pedagogical knowledge encompasses educational purposes and values and in addition, requires a Cognitive, Social and Developmental Theory of Learning and how they apply within the classroom.

## Ideology/knowledge Base According to Schulman

Schulman (1987) outlines the categories of teacher knowledge to promote understanding among its students. He considers seven types of basic knowledge that a teacher must have and they are

- Content knowledge
- General pedagogical knowledge
- Curricular knowledge .
- Pedagogical Content Knowledge (PCK)
- Knowledge of learners and their characteristics.
- Knowledge of educational contexts .
- Knowledge of purpose, educational purpose and educational values and their philosophical and historical base.

## Pedagogical Content Knowledge (PCK)

Schulman (1987) says that the PCK is that special amalgam of content and pedagogy that is uniquely the province of teacher, their own special form of professional understanding

**Pedagogical Knowledge** General knowledge about pedagogy is known as pedagogical knowledge. This includes Teaching Approach, how student learn, methods of assessment and knowledge of different theories about learning,

**Content Knowledge** It is about the knowledge of the subject matter, without consideration about teaching the subject matter

**Pedagogical Content Knowledge (PCK)** is a combination of both content and pedagogical knowledge. It is understanding what makes learning some topics easy or difficult on the basis of students' age and background. He had special interest in PCK as it involves different bodies of knowledge for teaching. It tries to understand how particular topic, problem or issue are organised and adopted to the diverse interest and ability of learner and presented for instruction a

*According to Schulman, PCK is*

- the most regularly taught topic in one's subject area. the most useful form of representation of ideas.
- the most powerful analogies, illustration examples, explanations and demonstrations.

- the way of representing and formulating the subjects, that makes it comprehensible to others.

## Deng And Luke

**Zongyi Deng** is an associate professor at National Institute of Education, Nanyang Technological University, Singapore. He is also an editor of the Journal of Curriculum Studies. He has interest in curriculum content or subject matter, Curriculum Theory, didactics, comparative and international education and Chinese education.

The form of knowledge is the experiential conception of knowledge based on Dewey's (1916) notion, that knowledge is located in and based on human experience

**Allan Luke** is an educator, author, activist, international researcher and policy change agent in all Australian states and New Zealand, Singapore and Hongkong. He has written or edited over 15 books and more than 200 articles and book's chapters.

**Deng and Luke** (2008) proposed three conceptions of knowledge based on their examination of several disciplinary and epistemological knowledge classification schemes.

They are :

- The disciplinary conception of knowledge, describes canonical knowledge in the established disciplines.
- The practical conception of knowledge, represented by procedural knowledge, derives from the wisdom of practice
- The form of knowledge is the experiential conception of knowledge based on Dewey's (1916) notion, The knowledge is located in and based on human experience.

There are other ways of knowing, for example, scientific or aesthetic ways of knowing. These three different ways of knowing, provides a useful interpretive framework to conceptualise secondary school teacher's sources of knowledge. Deng and Luke's (2008) conceptions of knowledge and what it means for teachers 'to know something raises broader questions of the purpose of this knowledge and what kind of knowledge is important in terms of student's engagement.

## Habermas

Jurgen Habermas is a German Philosopher and Sociologist in the tradition of Critical theory and pragmatism. He works for the whole society, not only for one aspect of it. His work is used internationally in philosophy, political science, sociology and education.

He has theorised history, in a way that it may resonate with teachers. Though not referred to much, Habermas's work is still used in pre-service training.

Habermas (1971) studied the nature of knowledge that human beings adopt or generates (i.e. knowledge is constitutive interests of human beings) and the use of reflection, as one of the processes that human beings adopt in the generation of particular forms of knowledge.

The knowledge constitutive interests are of three types, i.e. technical/instrumental knowledge constitutive interest, knowledge constitutive interests in hermeneutic disciplines, and emancipatory knowledge constitutive interests. In social science, both Interpretive Process of Enquiry (which is the basic method) and Critical/ Evaluative Process of Enquiry (which provides critique so necessary for self-understanding and critique of the process) are adopted for knowledge generation and interpretation

The evaluative enquiry is equated to reflection, and the Critical Theory of Social Science uses questioning and understanding to serve the emancipatory interest. While, reflection may not play any role in physical science, it is important in case of Interpretive Enquiry of Social Science and for emancipatory interests and reflection should be used, both at stages of interpretive enquiry and empowerment and emancipation. While applying to the context of teaching

Van Manen (1991) suggests the applications of reflection at four levels, and they are

- Day-to-day application in thinking and acting.
- Reflecting on specific events or incidents.
- Reflection on personal experiences and experiences of others and developing understanding through interpretation (1.0. Interpretive Enquiry of Habermas).
- Reflecting on reflection, i.e. understanding the nature of knowledge and possible emancipation (i.c. Emancipatory Interests of Habermas).

## Ideology/Knowledge Base According to Habermas

Habermas classifies three forms of knowledge as

**Technical Knowledge** It refers to those forms of knowledge, related to manipulation of the environment, controlling the natural object and event.

**Practical Knowledge** It concerns the 'hermeneutic' task of extending understanding in inter-subject relation. By this, we achieve consensus, community and mutuality.

**Emancipatory Knowledge** It is more about abstract level. It involves liberating people from their socio-historic constraints. This is achieved through self-reflection.

Technical knowledge and practical knowledge are primary. While emancipatory knowledge is derivatory, in the sense it is dependent upon some actions like exploitation, distorted communication and so on.

## Reflective Teaching

Reflective teaching is a process where teachers think over their teaching practises, analysing how something was taught and how the practi might be improved or changed for better learning outcomes.

It is a process of self-observation and self-evaluation. It involves examining oneself in the class, thinking of what he/she does and if it works or not. By collecting what goes in the

classroom and by evaluating it, the teacher identifies and explores our own practises and underlying beliefs.

It is a personal tool. The teacher can utilise this tool to observe and evaluate the way they behave in the classroom. It can be both private or something that can be discussed with colleagues. In the process of reflective teaching, not only the teacher figures out what works and what doesn't, but they also build self-awareness that is a good tool for a teacher.

## Definitions of Reflective Teaching

According to **Richards** "Reflective teaching is a move beyond the ordinary to a higher level of awareness of how teaching takes place"

According to **Bailey**, "Reflective teaching is about a skilled teaching of knowing what to do".

According to **Tyce**, "Reflective teaching means looking at what one does in the classroom, thinking about why one does it and thinking about if it works as a process of self- observation and self-evaluation".

According to **Lockhart**, "A reflective approach to teaching is one in which teachers and students collect data about teaching, examine their attitude, belief, assumptions and teaching practises and use the information obtained as a basis for critical reflection about teaching".

## Importance of Reflective Teaching

- The teacher collects a variety of different aspects of their lessons. They know how to present the lesson to his/her student. This includes methods, like organisation of lesson, teacher's time management, student's performance on task, teacher's questions and student's answers, classroom interaction, etc.
- It implies a systematic method of collecting, recording and analysing the thoughts and observations. The teacher does not jump into conclusion, by considering the response of the louder student, instead analyse the overall class.
- It helps to evaluate and improve the quality of teaching.
- It gives freedom to teachers to impose their own methodology enhancing rational thinking.
- It develops critical thinking and promotes experiential learning
- Reflective teaching practice can be a beneficial form of professional development of both the pre-service and in-service levels of teaching,

## Approaches of Reflective Teaching

The approaches of reflective teaching are as follows

### External Assessment

**(i) Peer Observation** It allows the teacher to know each other's teaching style. They can gain some insights from it and get an opportunity to reflect on their own teaching. Peer observation can be carried out by

- Participants observing each other's classes.

- Pre-determination of what will be taught and how it will be taught.
- Observer will observe the class, on the basis of set parameters.
- After the observation is over, the teacher will meet and discuss the result.

**(ii) Student Evaluation** Instructors can consider student evaluation as one data source in their instruction. They can seek out other ways to assess their practices to accompany student evaluation data before taking steps to modify the instruction.

### Written Account of Experience

Written account can be a helpful way of engaging in reflective teaching. Different kinds of written account can be

**(i) Self-reporting involves** completing a checklist in which the teacher indicates which technique was used for a given lesson. Self-reporting is a way to note down regularly the whereabouts of the classroom.

**(ii) Journal Writing** It is a very famous way to reflect on the lesson plans. It is an important cause for the teacher that can track his/her self-development process. Teacher can record his/her experience in a personal and dynamic way.

**(iii) Recording Lesson** Recording audio or video can be a useful tool in active teaching. Diaries and self-reporting may be a good way but some things may not be noticed by the teacher's mind and be forgotten. Thus, diary and reporting should be complemented by recording.

### Self-Assessment

This approach mainly consists of

**(i) Teaching Inventories** A number of inventories have been developed to help instructors to assess their teaching approaches. Inventories are usually designed to assess the extent to which particular pedagogies are employed.

**(ii) Teaching Portfolio** It allows instructors to pull the various components of their teaching into a cohesive whole. The portfolio does not capture classroom practices very well, but provides an opportunity for instructors to see their teaching in a big framework.

### Strategies for Promoting Reflective Teaching

The first step towards the process of reflection is to gather information about what happens in the class followed by analysis of the data. Some of the strategies used by the teachers are

**Reflective Journal** This is the easiest way to begin a process of reflection since it is purely personal. Student teachers encounter many issues in classroom settings. They can describe their own reactions and feelings and these things which happened during each session.

**Collaborative Learning** Brook field maintains the importance of continual dialogue with peers about teaching in a mutually cooperative environment rather than a competitive one. Collaboration with peer members increases the probability that students teachers will be successfully reflective and more confident in their professional development.

**Recording Lessons** Video or audio recordings of lessons can provide very useful information for reflection. A classroom video can vividly picture the whole process of teaching. It can trigger teachers' reflective thinking, reflect on their weaknesses and help them get some inspiration and ideas for their teaching improvement.

**Teacher Education Feedback** The feedback from the teacher educator can help the student teacher to reflect upon their lesson or any activity conducted in the institution.

**Peer Observation** Observation is the most basic research technique that student teachers employ in classrooms. The student teacher invites a peer member to observe his/her class to collect information about the lesson.

This may be with simple observation tasks or through note taking. The observer should not be involved in evaluating a student teacher's lesson. Therefore, observation is a good way for their professional development.

**Student Feedback** The student teacher can ask their students about what goes on in the classroom. Their opinions and perceptions can add a different and valuable perspective. This can be done with simple questionnaires.

**Action Research** It is also a kind of reflective practice. It is a reflective process of progressive problem-solving led by teachers to understand their practice and improve the way they address issues and solve problems. It helps student teachers to become aware of what's happening in the classroom by identifying common problems and hypothesising about possible causes and solutions and attempting to apply an action plan.

#### Advantages of Reflective Teaching

- It develops the quality of education through continuous improvement.
- It helps the teacher to reflect and assess their own teaching.
- It enables teachers to bring in new ideas, methods, approaches and materials.
- It gives an opportunity to assess how effective new approaches are.

#### Disadvantages of Reflective Teaching

- It may not be adequate to resolve educational problems through reflective practice.
- It could be a time consuming process.
- It is not suitable for small children at the lower level of teaching

#### Models of Teacher Education

Models of teacher education deal with the ways in which the learning environment and instructional environment can be instructed, sequenced and delivered. There are literally hundreds of models of teaching and learning, so that the teachers don't have to worry about which new model to follow.

*Model of teacher education helps the teacher to*

- grow highly tuned and more varied professional stock
- reach a large number of students effectively.

- create uniform or varied instructional events, guided by target subject content or process.
- understands the focus of the curriculum better.
- gains insight on why all the models don't work with all the students.
- modify existing methods of teaching and instructional delivery, so that they can meet the needs of today's students.

## Behaviouristic Model

Behaviour is reaction and movement that an organism does in a given situation. It normally consists of what appears on the outside. Behaviourists claim that learning can be conducted by noticing the behaviour of a particular stimuli. Also, the behaviour can be changed by reinforcement.

Behaviourists believe that people are not good or bad from birth. Experience and environment changes the person. A human brain is compared to black box. One doesn't need to know what is inside of it. Only thing that matters is what goes in the black box (input) and what comes out of it (output). Output is objective, observable and measurable. Inputs and outputs can be arranged, adjusted and controlled.

### Basic Concept of Behaviourist Model

According to the behaviourist model, conditioning is the base of all human behaviour. It is against the concept that says mental processes are under mind and conscious. The basic concepts of behaviourist approach are

### Conditioning

Behaviouristic approach says that learning takes place through conditioning. Conditioning occurs in a way that organisms match certain stimuli with certain reactions. When a reaction is obtained from certain stimuli, the organism is said to be conditioned.

*Conditioning can be of two types*

**(i) Classical Conditioning** It says that neutral stimulus is matched with unconditioned reaction.

**(ii) Operant Conditioning** It is a learning process through which the strength of a behaviour is modified by reinforcement or punishment.

### Organism

Behaviourists used a more general term, 'organism' instead of 'human' 'individual'. The term 'organism' signifies both people and animals.

### Reaction

Behaviourist's psychologists are also called S-R theorists. In this theory, reaction is a behaviour by an organism against a stimulus.



## **Stimulus**

It is composed of change in the internal and external states that moves the organism. Behaviouristic Approach mainly deals with external changes of state rather than internal changes.

## **Reinforcement and Punishment**

Reinforcement consists of increasing the possibility of an organism to display behaviour to a certain stimulus. The stimulus in this process is called reinforcer.

The response to an organism's behaviour can be of three kinds:

- Reinforcement
- Punishment
- Not reinforcing

While reinforcement increases the possibility of behaviour displayed once more, punishment results in chances of not displaying the behaviour. Not reinforcing means, not giving any response and decrease in chances of behaviour being repeated.

## **Scholar's View Point about Behaviouristic Model**

### **Ivan Pavlov**

Ivan Pavlov was a nobel prize winner and a Russian scientist. In 1927, he conducted a famous experiment with dogs. Pavlov taught the dogs to salivate when they heard a bell, a signal of their feeding time. Later, he did not feed them but still rang the bell. But, the dogs still salivated. Thus, learned behaviour was a result of event experienced, rather than conscious thought process. This is termed as classical conditioning. It can be helpful for behaviours of man and animal alike. So, it can be used to shape the behaviour of children as well.

### **John B Watson**

Behaviourism is closely related to Pavlov's experiment but it was Watson, who established Behaviourism in 1913 with his article. He is best known for taking his theory of behaviourism and applying it to child's development. He strongly believed that a child's environment contributes more than genetic makeup in forming the child's behaviour. He believed that one can expose the child to certain environmental forces and over time the child is conditioned to become any kind of person.

### **BF Skinner**

Skinner's primary contribution in Behavioural Philosophy is operant conditioning and reinforcement schedules. An operant is a behaviour that acts on the surrounding environment to produce a consequence. The operant is said to be reinforced, if the consequence increases the probability of behaviour's occurrence.

He believed the goal of psychology should be to find ways to make education enjoyable. His Learning Theory is based on an assumption that the best way to modify behaviour is to modify

the environment. He is a pioneer in suggesting the use of the modern day method of teaching. This includes scaffold instruction, small units repetition and review of instruction and immediate feedback.

Skinner did not advocate for punishment, he found punishment to be futile. He believed in frequent use of reinforcement to modify and influence student's behaviour.

## Competency Based Model

Competency Based model is an approach to education that focuses on the student's demonstration of desired learning outcome as central to the learning process of teacher education, It is concerned with student's progression through curriculum at their own pace, depth, etc. There is no course or module every individual has own skill or learning outcome which is known as competency.

Learners work on one competency, which is like a small component of a large learning goal. Students are evaluated on an individual's competency and can move to other competencies, only if they have mastered the previous competency.

### Characteristics of Competency Based Model

- An important characteristic of competency based learning is its focus on mastery. In other learning methods, students are exposed to content overtime and success is measured summatively. In competency based learning, students are supposed to continue and demonstrate mastery in the chosen competency.
- Competency based programs tend to be reality oriented, the students spend a great deal of time in the school interacting with children and many of their competencies are evaluated in that setting.
- The flexibility of competency based programs allows students a choice of goals and objectives within the framework of specified education goals. This increases their chances of becoming independent, self-directed and continuing learners.

### Advantages of Competency Based Model

- Participants will achieve competencies required in the performance of their job.
- Participants get confident as they succeed in mastering specific competencies.
- Training time is used more effectively as the trainer as facilitator of learning rather than just a provider of information.
- More time is spent with learners as opposed to presenting lectures.
- More time is devoted to evaluating each learner's ability to perform a specific skill.
- Providing a framework for identifying learning options to meet organisational needs. .

### Disadvantages of Competency

- Teachers are mostly ill-equipped to implement competency based models, unless they themselves were a product of it.

- The lack of awareness about the need as well as the required know, how and about benchmarking of assessment was one of the main obstacles to effective implementation of Competency Based model.

## Inquiry Oriented Model

Inquiry based learning is a form of learning that starts with posing questions, problems and scenarios. Inquiry based learning is often assisted with facilitator, rather than a lecturer, **Richard Schuman** is an originator of Inquiry Teaching Programme. He said that it is a natural way of learning, when the individual is left alone,

### Characteristics of Inquiry Oriented Model

- It focuses on constructive ideas of teacher education knowledge, generally, built in a stepwise manner,
- In a group, the learning is much better. Teacher does not begin with a statement rather with a question.
- Giving questions to tackle is an effective method of instruction in many areas. This helps the students to learn on their own with teacher's guidance. .
- The topics, problems and methods are used to answer the problems that are determined by the student and not the teacher.

### Phases of Inquiry Oriented Model

*Phases of inquiry oriented model includes :*

**Interaction** The first step in Inquiry Oriented model is interaction,

Different kinds of interaction are as follows :

- (i) **Student to Material** Material is obtained through both formal and informal means,
- (ii) **Student to Peer** Due to need of information and perspective, this interaction is chosen,
- (iii) **Student to Expert** There is a need for experts within relevant fields at accessible levels.
- (iv) **Student to Media** This allows the students to actively engage themselves with learning with the help of media,

**Clarification** Clarification of a subject that courses ty analysing, data, identifying, and clearing misconceptions.

After reading, watching, and interacting with the media, this process is for the learners to clarify their thinking. Thinking is both outward and inward. Thus, students can reflect both on their knowledge, and can identify the best way to proceed further,

**Questioning** Questioning phase: is the most important phase. Both student and teacher should trust the nature and the pattern of inquiry that is often repetitive. Often, they move back and forth in phases to make any kind of progress. But, the Inquiry Oriented Model is more about the process, tone and instincts of learning, rather than other academic forms.

## Disadvantages of Inquiry Oriented Model

- This model requires total student engagement, but it could be challenging for those students who do not think quickly or suffer from learning disabilities.
- If teachers do not completely understand this concept at a deeper level then it creates a disconnect, which in turn leaves the students unprepared.
- When teachers are unsure of how to manage this process, they may default to asking closed, content-specific questions and the rigour of authentic inquiry is lost.
- This model will standardise and effectively limit the levels of achievement to those that have already been decided by the teacher.

## Advantages of Inquiry Oriented Model

- its emphasis is on the process of gathering and processing more information,
- The approach involves some degrees of freedom that leads to initiative and divergent thinking
- A deep sense of responsibility is developed, when the learners are left to manage their own learning
- The facts and concepts that learners develop themselves become a part of permanent memory.
- Experiencing success in this approach boosts the confidence of learners.
- Participating in inquiry activities strengthens the learner's intellectual capabilities.

# In-Service Teacher Education

## Concept of In-Service Teacher Education

In-service teacher education is provided by an organisation to an employee. It is a learning experience for an employee, who has already completed his/her education. These kinds of learning experiences are provided to make an employee more skilled for the current or upcoming position.

Education system's performance depends upon the performance of a teacher. \*In-service teacher education helps the teacher to progress and know more about the subject area. The teacher is updated with the latest knowledge. This makes them capable to serve in any kind of environment. In-service teacher education can be defined as a relevant course and an activity in which an employed teacher participates to upgrade their professional knowledge and skills. Therefore, it constitutes all kinds of education and training, given to a teacher, who is already serving.

It is a way of staff development, which is a necessary and continuous process. It provides the teacher with essential knowledge, to meet the needs of school. Thus, the school/institute gains more from in-service teacher education as it develops the teacher.

Teachers play a vital role in education development. In-service teacher education is concerned with activities and courses which helps the teacher to upgrade his/her knowledge and interest. As such, in-service teacher education fills the gap of professional inadequacies

It also refers to continuing education. This includes re-training, re-skilling and updating the knowledge. Continuing an education helps the teacher to develop their abilities, enrich their knowledge and improve their qualification.

## Definitions of In-Service Teacher Education

Bolam (1982) has defined in-service teacher education as "The education and training activities engaged by primary and secondary school teachers and principals, following their initial professional certification and intended mainly or exclusively to improve their professional knowledge, skills and attitudes, in order, that they can educate children more effectively".

MB Buch, a former director of the department of field services, defined in-service teacher education as "A programme of activities aiming at the continuing growth of teachers and educational personnel in-service".

sense Cane (1969) defined in-service teacher education as "It 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 maximise their pupil's learning and in turn derive maximum inner satisfaction and of achievement".

Cane summed up the following significant components of the in-service teacher education programme

- Professional knowledge
- Skills
- A code of conduct or ethics of profession
- Attitude towards profession
- Professional skills
- Interest towards teaching profession
- Activities such as seminars, symposiums, workshops, discussions, brainstorming, etc, helps in development of professional knowledge.

Therefore, in-service teacher education can be defined as all those activities and courses, which aim at enhancing and strengthening the professional knowledge, interest and skills of serving teachers.

## Nature of In-Service Teacher Education

- It's activities are based on real and specific problems of workers.
- It involves all the personnel in planning.
- The in-services teacher educator has developed insight and taking abilities in all the participating members.
- The learning principles are utilised and learning growth takes place in a climate, favouring the development of new participations that can be translated into actual practice.

- It is an integral part of a working programme, and time and money etc, are provided for its proper functioning
- There is participation and cooperation with the community, and educational facilities are included in the activities.
- evaluated • The activities of the programme are continuous and intelligent.

## Needs of In-Service Teacher Education

In-service teacher education provides the teacher with opportunities to learn specific skills, techniques and new instructional approaches, that they can inculcate in their own teaching

*Following are the needs of in-service teacher education*

- To suggest remedies for inadequacies of a Teacher Training Programme (TTP).
- To provide a chance to update a teacher's knowledge in the development of science and technology applications.
- Helps to get an improved understanding of pedagogical techniques and equitable teaching practises.
- Practice new teaching techniques and share the experience with other teachers.
- To upgrade the knowledge of teaching techniques.
- To provide an exposure to new techniques and development in the IT sector.

## Scope of In-Service Teacher Education

- Maintenance of familiarity, with updated knowledge and subject matter.
- Increase in the skills of participants.
- Improved attitude towards peers as in-service teacher education training takes place in groups.
- Improved skills in utilisation of community resources by the teacher.
- Teachers develop common values and goals.

## Purpose of In-Service Teacher Education

According to Asian Programme of Educational Innovation for Development (APEID), 1978, following are the purposes of in-service teacher education in developing countries

- To provide adequate professional training, so as to make teaching and learning effective.
- To keep the teacher abreast of new developments in curricular subjects and pedagogy.
- To upgrade the academic qualifications of teachers.
- To develop the skills and attitudes, responsive to emerging national development goals and programmes.
- To make the teachers aware to the problems of the community and to develop the necessary skills and attitudes, enabling them to be an effective change agents in the community

## Objectives of In-Service Teacher Education

On the basis of various reports on in-service teacher education, submitted in various international conferences and workshops organised by Commonwealth Secretariat, UNESCO and its APEID, six objectives of in-service teacher education in developing countries of Asia including India have been developed. These objectives are directly related to in-service teacher education needs of schools and teachers. The objectives are :

- Providing professional training and qualifications to untrained working teachers. Although, the majority of teachers are inducted after obtaining a specified initial teacher training, still there are some teachers in certain states, who were appointed without any prior training for teaching. For them, there is a need for providing a first level in-service teacher education training.
- Upgrading the qualifications of serving teachers, whose original qualification may have been rendered out of date, due to the changes and reforms. The process of improvement and change in teacher preparation programmes is continuous and therefore, in-service teacher education programmes should focus on this objective.
- Arranging refresher courses to familiarise teachers with modern practises, being encouraged in schools. Improvement in competence of teachers in their subjects and in practical teaching skills is important for every school. The need to update teachers, in production of teaching materials, use of audio-visual aids and applications of evaluation techniques.
- Disseminating specific educational innovations such as curriculum change, population education, children from deprived sections of society, etc.
- Ensuring quality management of educational administration at all levels is an important goal of in-service teacher education. This may involve retraining teachers to enable them to take up new responsibilities outside the classroom for which their earlier training or experience may not have prepared them.
- Improving the quality of teacher education. There is growing emphasis on the needs for continuing training of the teacher educators themselves.

## Advantages of In-service Teacher education

- The serving professional teachers get ample opportunities for updating their knowledge and skills towards betterment of performance and advancement in schools, without resigning from their position.
- The school's system can retain the services of trained and qualified teachers while in an in-service teacher education programme.
- Greater degree of opportunities for increasing the number of trained and qualified teachers at all levels of education.
- Reducing the financial burden of employers of teachers, as the money they had to pay as allowances on full-time to their teachers on their education programme was saved.
- Providing additional sources of revenue generation for teacher education institutions in which the in-service teacher education programmes are based.
- The staff members who are participating, get an additional source of income.

- The teacher education institutions provide service in essential areas of national development, especially, by putting their facilities and staff into use during the long vacations.

## Disadvantages of In-Service Teacher Education

- In-service teacher education programmes are expensive and most participants are self-sponsored.
- As a result, many of the teachers cannot cope with high training fees and other incidental expenses for textbooks and personal upkeeps.
- The time factor is a major constraint, as designated hours for lectures and examinations are inadequate. Therefore, the effectiveness and scope of an instruction is in doubt.
- There are a lot of discrepancies in the approaches and techniques adopted by the different institutions involved in the in-service teacher education programmes, which implies lack of uniformity in course content and methodology.
- There is a problem of poor planning and organisation, whereby available activities for participants are impersonal and unrelated to their job settings in the classroom.

There is a problem of inadequate facilities in terms of classrooms, laboratories and boarding facilities to accommodate the size of an enrollment.

## Organisation and Modes of In-Service Teacher Education

In-service teacher education programmes can be of various patterns including single or many schools. The format depends from an informally arranged programme to a highly structured programme. Organisation of the modes in the in-service teacher education is necessary as it will help the teachers to deepen their knowledge of teaching methods and educational theories.

Depending on the instructional need, given are some of the different modes of in-service teacher education

### Seminar

A seminar is generally used as one of the common devices to impart information regarding specific topics to develop higher cognitive abilities i.e. analysis, synthesis, evaluation and observation and to develop cooperation and toleration among the participants. It is a small group discussion in a formal setting with a clear agenda. A speaker presents a theme or a set of papers and it is discussed by all those who participate.

The chairperson guides, directs, coordinates and organises the discussion in a systematic way in order to optimise time, resources and get more benefits. A seminar may either take the form of a small group discussion, followed by the presentation of a paper or a lead lecture, or a short course or conference of a number of sessions with a full participation and discussion between experts and participants. Such discussion not only provides the participants with required knowledge and insight but also an opportunity for clarification of doubts. Moreover,



the participants make queries for classification of any point and the paper presentation is required to meet these queries with adequate facts and figures.

### Workshop

As an essential technique of in-service teacher education training, the workshop is organised with a group of 10 to 25 persons having shared problems in order to develop the psychomotor aspect of the teachers regarding practises and innovations in the area of education. It was first introduced in 1936, by the Progressive Educational Association at Ohio University. Now, this technique has been accepted as one of the best to solve the problems of teaching profession, to meet the instruction-based needs of the in-service teachers, to develop skills to perform a task independently, to use teaching strategies effectively, to provide training of new practises in teacher education.

a for different question Since, it is skill-based, it is organised to develop certain skills in teachers. For example, teachers could be provided knowledge about computer language for which they would be able to develop some simple computer software. They could be trained in new laboratory skills, developing banks, analysing questions, examinations and suggesting reforms.

### Panel Discussion

Herry A Ober street was the first person to use panel discussion technique in 1929 to highlight certain topics , which attracted the attention of an audience. As a good device, panel discussion is used for the training of teachers on the job.

A panel of experts with sound knowledge and experience in the subject-concerned, first presents their own angle of thinking on selected aspects of a problem to be followed by questions from the audience and responses by the panellists.

The panel members interact with each other in an atmosphere of freedom and spontaneity. One of the panel members acts as a chairperson, to see that discussion is kept on smooth sailing and all members participate more or less equally and freely. The essence of the discussion is the joint effort, to solve problems through group thinking and active involvement.

### Symposium

Symposium as an instructional technique, is a meeting of persons, to discuss a problem or theme in which views are presented in a sequence. It comprises field experts who focus on the specific aspect of the theme. It is organised, to discuss different significant issues in a short period, to bring the main thoughts into focus. It serves as an excellent device for informing the audience, crystallising opinion and preparing them to understand and arrive at decisions, policies, values, judgements or understanding.

### Conference

A conference is a meeting of individuals called together to engage in discussion with the aim of accomplishing a limited task in a limited time. It is organised to discuss current problems

with a view to provide a workable solution. It is generally organised by organisations having permanence as an attribute.

Conference is organised to achieve the following objectives at cognitive and affective level

- Development of analysis, synthesis, evaluation, reasoning and critical abilities, abilities of expressing one's own feelings and observations, sensitivity towards the problems and abilities to study the facts, concepts, problems in depth are of the former category.
- Development of toleration and respect for -, of thoughts, development of maturity and balance are of the later objective domain. In brief, behavioural skills and mannerism nurtured among the participants who are trained to present the ideas and put questions and seek clarification.

#### Auto-Instructional methods

Reading of professional literature can contribute to the growth of professionalism of teachers. Much of the information, understanding and skills required of a teacher could be picked up through self-directed activities such as reading books and articles on education. Professional materials should be consulted as sufficient resources to improve teaching skills. These do have tremendous influence upon the teaching profession.

#### Summer and Winter Institutes

These are very effective means of promoting professional growth of teachers. Through these institutes, teachers can refresh and update their DIET knowledge, learn new methods of teaching and meet emerging challenges of education. In brief, these institutes help in the growth of professionalism of teachers on the job.

#### Refresher Courses

These are important techniques of professional growth of teachers. They can help in updating the knowledge and experience of teachers.

These courses can be used for

- Giving training to teachers in connection with latest developments in Teaching and education.
- giving them an understanding of educational plans and schemes introduced by government and other agencies from time to time

#### Orientation Training

It is essential for ensuring quality in an education. It provides adequate knowledge, skills, values, etc, to teachers with a view to improving their styles of teaching. It helps in updating their knowledge. Thus, it helps in promoting professionalism in teachers on the job.

## Agencies and Institutions of In-Service Teacher Education

The agencies of in-service teacher education are at the district, state and national level. At the district level, the different agencies are DIET, SSA. At the state level, the different agencies are, SIE, SCERT, SBTE and UDE. At the national level, the different agencies are UGC, NUEPA, NCTE and NCERT. The goals and objectives of these agencies are different, but they have one important goal, which is focused upon leading to improvements in the quality of education. The teachers are considered to render an indispensable contribution in leading to improvement in the overall system of education as well as in encouraging growth and development of the students. Explosion of knowledge in India has led to a change in educational needs. A teacher is supposed to face this change, with the help of training. Such training needs are satisfied by different agencies at different levels.

### Agencies at District Level

*Following are the agencies of in-service teacher education at district level*

#### DIET

District Institute for Education and Training (DIET) are district-level educational institutes which has been established in each district of India by the Government of India.

They help in coordinating and implementing governmental policies at district level. Continuous in-service education of teachers is necessary to keep the teachers at par, with changes taking place in their professional environment. In-service teacher education also develops their skills and attitudes in the light of their changing roles. Latest approaches and methodologies should be followed in the training. Action research and experimentation needs to be conducted, to tackle specific problems. This field experience should be used in different in-service teacher education programmes.

#### Objectives of DIET

- To conduct effective training in pre-service and in-service training, including the latest developments in the teaching-learning process.
- To enable the teachers to be aware and develop new techniques and strategies in education.
- To give support to schools and teachers for improving the quality of primary education.
- To organise seminars, debates, etc, on different areas related to school education such as integrated education for the disabled, National Curriculum Framework, research seminars, etc.

#### Functions of DIET

- Training and orientation of following target groups.
  - ❖ Elementary school teachers (both pre-service and in-service).
  - ❖ Headmasters, heads of school complexes and officers of educational department upto block level.
  - ❖ Development of locally relevant materials, teaching aids, evaluation tools, etc:

- To provide training and guidance for implementation of programmes like activity based and joyful learning for creating willingness to go to school.
- To undertake research and experimentation, keeping in mind problems of the educational area and to solve SCERT them.
- To provide guidance and evaluation techniques, to ensure success for activity based education.

## SSA

**Sarva Shiksha Abhiyan (SSA)** is a Government of India's flagship programme for achievement of universalization of elementary education in a time bound manner. This is in accordance with the 86th amendment of the Constitution of India, making free and compulsory education to the children of 6 to 14 years age group, a fundamental right. In-service teacher education is understood as professional development or sometimes as part of wider professional development or growth.

### In-Service Teacher Education Guidelines by SSA

- It takes into account the Constructivist Approach as laid down in NCF, 2005. This means that the teacher should act as a facilitator and work towards creating a variety of learning experiences in and out of the classroom that enable children to construct knowledge from activities and experiences in day to day life.
- This approach requires being reflective, i.e. teachers need to become mindful enquirers into their own experiences, to guide children meaningfully.
- The guidelines advocate a Split Up Model of in-service training, in which 6 to 8 days training is provided at the DIET level and 2 days training through actual observation of the classroom's situation.
- In keeping with NCF 2005, the guidelines recommend training of teachers in areas such as art and heritage crafts, health and physical education, work education and education for peace, besides training in basic subjects like language, EVS and Mathematics.
- The guidelines stress identification of training needs and development of appropriate training modules through SRG'S/DRG'S. It is also recommended that the training design should emphasise local contextuality and specificities in the teaching-learning situation.
- A list of suggested readings, educational audio and video programmes for teachers have also been provided in the guidelines.

## Agencies at State Level

Following are the agencies of in-service teacher education at state level

### SCERT

State Council for Educational Research and Training (SCERT) is a leading body responsible for quality education in the state. It is an autonomous body entrusted with planning implementation and evaluation of all academic programmes from pre-school to higher secondary level.

SCERT has been organising in-service teacher education for teachers in small groups of 50 teachers in each group. The methodology of training in a small group includes

**Activity** The participant is expected to perform an activity either individually or in group of 5.  
**Workshop** Workshop is organised to consider intensive practical problems of classroom's teaching like lesson planning, curriculum construction, etc.

**Training** Various kinds of training are provided to teachers, to face the challenges of teaching better. This may include training on adult health education, ICT training, pre-primary training, etc.

**Programmes** These are long term courses, carried out to make a teacher professionally fit for the course. The programmes may include guidance and counselling, comprehensive teacher transformation programmes, language courses, etc.

### **Objectives of SCERT**

- To conduct teacher education courses as per National Curriculum Framework on teacher education.
- To conduct short-term training programmes for teachers and teacher educators development.
- To conduct and promote educational research and surveys for qualitative improvement of school education and teacher's education scenario of the state.
- To organise seminars and conferences on emerging issues, related to school and teacher education of the state.

### **Functions of SCERT**

- To assist the Government of State in formulating academic policies, planning for quality improvement of school and teacher's education.
- To design pre-service and in-service teacher education courses as per guideline of NCTE from time to time.
- To promote applications of ICTs in educational programmes.
- To perform any other duties and responsibilities to be assigned by the government, from time to time on academic matters.
- To impart in-service training to the teachers from pre-primary to higher secondary schools.
- To prepare training aids for educational institutions.

### **RMSA**

Rashtriya Madhyamik Shiksha Abhiyan (RMSA) is the most recent initiative of Government of India, to achieve the goal of universalisation of secondary education. It is aimed at expanding and improving the quality of secondary education from classes IX to X. Under RMSA, NCERT wishes to strengthen in-service teacher professional development programmes secondary stage. Professional development is enrichment training, provided to teachers, over a period of

time. Professional development promotes the development in all aspects of context and pedagogy.

In the last few years, a major in-service professional development programme has been conceptualised and implemented. RMSA has brought in the possibility of continuous capacity building exercises for teachers.

### **Objectives of RMSA**

- Establishing secondary school within a radius of 5 km. Achieving 75% access by 2012-13 and 100% access by 2017-18. . .
- Achieving 100% retention by 2020.
- Providing necessary physical facilities, teaching and non-teaching staff for every secondary school. .
- To see that no student shall be deprived of secondary education because of gender disparity, socio-economic reasons, disability or any other reasons.

### **Functions of RMSA**

- Coordination with different departments of NCERT and outside agencies to support the implementation of RMSA in the country with special reference to quality embedded with equity.
- Initiating and promoting dialogue with various stakeholders on quality issues and concerns related to secondary education under RMSA.
- Strengthening ICT enabled secondary education for quality improvement in all curricular areas.
- Capacity building of various stakeholders including teachers and teacher-educators for the effective implementation of quality aspects such as curriculum reform, continuous and comprehensive evaluation, examination reforms, etc.
- Promoting research studies on quality aspects in secondary education.
- Strengthening coordination mechanism and collaboration with different agencies at various levels within NIE department, SCERTs, School Education Board, etc and develop feedback mechanisms for the effective functioning of these institutions.

## **Agencies at National Level**

Following are the agencies of in-service teacher education at national level

### **NCERT**

The National Council of Educational Research and Training (NCERT), is an autonomous body financed by the Government of India, was established on 1st September, 1961. The council operates through its six constituent units. They are

- NIE (National Institute of Education)
- Four RCEs (Regional Colleges of Education)
- CIET (Central Institute of Educational Technology)

### **Objectives of NCERT**

- Undertake, aid, promote and coordinate research in areas related to school education.
- Prepare and publish model textbooks, supplementary material, newsletters, journals and other related literature.
- Organise pre-service and in-service training of teachers. Develop and disseminate innovative educational techniques and practises.
- Collaborate and network with educational departments, universities, N90s and other educational institutions. state
- 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.

### **Functions of NCERT**

- Develops curriculum, instructional materials, methods of teaching, techniques of evaluation, teaching aids, kits and equipments, learning resources, etc
- Organises pre-service and in-service training of teachers, teacher educators and other educational personnel
- Conducts and promotes educational research and innovation.
- Disseminates improved educational techniques and practises and research findings.
- Acts as a clearing house for ideas and information on all matters related to school education.
- Assists and advises the MHRD in formulating and implementing policies and programmes concerning school education.

NCERT plays an important role in training secondary teachers, elementary and pre-school teacher educators and key personnel connected with school education. NIE, RCE and CIET organise training programmes, seminars and workshops for teachers, teacher educators and educational administrators and also undertake research and extension activities in the field of school education. The NIE has conducted many short term in-service programmes in different vocational courses.

It also conducts in-service training courses and orientation programmes in educational and vocational guidance for teachers, teacher educators, educational administrators and guidance personnel. Along with this, NCERT has also been taking interest in a number of innovative projects including use of computers in education, value education, creating awareness in children, about unplanned population growth. It also develops materials and methods in these areas and shows interest in the educational development of the deprived sections of the society. To pursue this programme, the council has initiated a scheme of opening **Regional Resource Centres (RRCs)** at selected universities.. Two RRC's are operating at **Aligarh Muslim University** and **Jamia Millia Islamia**.

**Four Regional Colleges of Education (RCEs)**, are located at **Ajmer, Bhopal, Bhubaneshwar and Mysore**. The RCE's are primarily engaged in providing innovative pre-service and in-service education. Regular in-service training programmes for secondary school teachers, elementary and secondary teachers educators and others. These colleges also arranged for extension of work. A special summer school cum correspondence course is offered in all the four colleges.

## NCTE

Kothari Commission Report (1964-1966) criticised teacher education programmes as being conventionally rigid and far off from reality. In face of these criticisms, **National Council of Teacher Education, (NCTE)** was established in 1973. It got **independent constitutional status** on 21 May, 1973.

A Programme of Action (POA) for in-service teacher education, started taking shape from 1988. Currently, it comprises approximately a total of 750 institutions including DIETs, CTEs, IASEs. In addition, a sole district structure namely BRC and CRC has been established in every block under DPEP and SSA to provide in-service teacher education. Recurrent and continuing programmes are organised through seminars, workshops, orientation courses as per the professional requirement.

### Objectives of NCTE

- To work especially, towards planned and coordinated development of teacher-education.
- To improve the standard and functioning of teacher educators.

### Functions of NCTE

- Undertake surveys and studies relating to various aspects of teacher-education and publish the results.
- Making recommendations to the central and state government universities. The UGC and other institutions in the preparation of plans and programmes in the field of teacher education.
- Coordinating and monitoring teacher education and its development in the country.
- Preparing a guideline with regard to minimum qualifications for the candidates to be employed as teacher educators at different levels.
- Developing norms for any specified category of courses or training in teacher education, including minimum eligibility criteria for admission.
- Preparing a guideline and specified requirements for starting new courses and programmes under teacher's education.
- Developing a guideline for a general teacher education programme.
- To advise the central government on matters like teacher education (in building pre-service and in-service training), evaluation of the curricula for teacher education and periodical review with respect to revision of curricula.
- To review the progress of the plan of teacher's education submitted by central/state governments.
- To advise the government on ensuring adequate standards in teacher's education.
- To give approval to teacher education institutions,
- To lay down norms for maintaining standards of teachers' education.
- Supervising the teacher's education programmes and providing financial assistance.

## University Grant Commission (UGC)

University Grant Commission (UGC) was established on 28 December, 1953 at New Delhi. It was given autonomy by the Government of India in 1956. The UGC, in pursuance of NPE



(1986) had set up 66 academic staff colleges (ASCs) in different Universities/institutions in the country. These academic staff colleges conduct specially designed orientation programmes for newly appointed lecturer and refresher courses for in-service teachers.

The orientation programme is intended to inculcate in the young lecturers the quality of self-reliance through awareness of the social, intellectual and moral environment as well as to discover self-potential and confidence.

The orientation programme leads to teachers, the awareness of the problem of Indian society and the role of education, higher education leader and educator in the resolution of these problems. This will help in achieving positive goals of national development. The refresher courses provide opportunities for employed teachers to exchange experiences with their peers and mutually learn from each other. It will also be a place to know about latest advances in the subjects, technological spin off, etc.

### **Objectives of UGC**

- Coordination, determination and maintenance of standards of university education. .
- It provides recognition to universities in India and disburses funds to such recognized universities and colleges.

### **Functions of UGC**

- To upgrade the standard of education with regards to the teacher's education.
- Residential accommodation are also provided for the university and college teachers and research associates are appointed for the post doctoral research studies.
- Grants are given by the UGC to the university teachers, for conducting their own research.
- The national fellowship and teacher fellowship are granted for the encouragement of research and teaching work.
- It provides travel grants to the university lecturers for attending international conferences and seminars, visiting professors are appointed from among the university professors for interchange programmes and delivering lectures.
- It provides awareness of new innovations and research in teacher's education.

## **Planning of In-Service Teacher Education Programme**

Planning is an important aspect for conducting a successful In-Service Teacher Education Programme.

*Effective planning can be broken down to the following types :*

Purpose: The reason why the in-service teacher education is being conducted, is a major factor in deciding the later step. The purpose could be to upgrade teacher's knowledge about

- Curriculum

- technology
- way of teaching

**Formulating** In this process, formulation of plans for proper execution of In-Service Teacher Education Programme is emphasised.

**Determining the Course of Action** During this process it is determined how the teaching objectives will be completed in a certain time. This is done through mapping out various factors.

**Duration** Depending upon the purpose, the in-service teacher education can be for a few days, week or a month long. Duration plays an important role as it helps the teacher to decide whether they will be available for a particular period of time or not.

**Resources** This involves assessing all available resources for conducting the programme. Human and financial resources are of particular importance.

**Budget** The budget will depend upon the kind of programme being conducted and seminar will definitely have less budget than a training programme.

## Teaching as a Profession

### Introduction

A teacher is one of the highly valued personalities in society. As such, teaching is considered to be the most sacred and distinctive profession. History is full of evidence about nations where education has brought significant progress. With the change in demands, the profession of teaching has become demanding. Many factors have been at work for years in bringing the change in the attitude towards teaching. Thus, now it is a learned profession. Global emphasis on literacy through programme like Education For All (EFA) and Right To Education (RTE) shows the world's concern for the teacher's role in the development of the society.

### Concept of Profession

We often use the term 'profession' in a generic sort of way referring to what is your trade/vocation. Profession is derived from the word 'profiteor' which means 'to profess'. Here, the connotation is that a professional is a person who possesses knowledge of something and has a commitment to a particular set of values, both of which are generally well accepted characteristics of professions. History records the early professions of the priesthood, law, medical/physicians and university teaching. As time progressed, dentistry, engineering, accountants and architects were ascribed 'professional status. The key characteristics that define an occupation as a profession are an assessment process for entry into the profession, a common body of knowledge, a code of ethics and a professional association.

## Definitions of Profession

According to **Webster's New World Dictionary of American Language**, "Profession is a vocation or occupation requiring advanced training in some liberal art or science, and usually involves mental, rather than manual work such as teaching, engineering, writing, etc".

According to **Obidi**, "Profession is an occupation that claims the exclusive technical competence and which also adheres to the service ideals and allows ethics of professional conduct".

According to **Hoyle and Megarry**, "Profession is an occupation that asserts an exclusive monopoly of knowledge, having definite standards and possesses the ability to convince the generality of the public that its services are unique".

According to **Falade**, "Profession contains essential characteristics such as an occupation, that carries with it great responsibility and that members of a profession possess special skills and competencies based upon a long period of theoretical and practical training".

According to **William**, "Profession usually exercises a system of control or a code of ethics over practice through professional societies, associations and institutions or sometimes by law".

According to **Saunders and Wilson**, "Profession is an application of intellectual technique to the ordinary business of life acquired as a result of prolonged and specialised training".

According to **Douley**, "Profession is a type of higher grade non-manual occupation, with both subjectively recognised occupational status, possessing a well defined area of study or concern and providing a definite service after advanced training and education".

## Characteristics of Profession

- It must satisfy an indispensable social need and be based upon well established and socially acceptable scientific principles.
- It demands continuous in-service training of its members.
- It must give evidence of needed skills, which the general public does not possess, i.e. skills that are partly native and partly acquired.
- It must have developed a scientific technique that is the result of tested experience.
- It must require the exercise of discretion and judgement according to the time and manner of the performance of duty.
- It must be a type of beneficial work, the result of which is not subject to standardisation in terms of unit performance or time element.
- There is a clear requirement for ethical constraints in the professions.
- It must have sufficient self-impelling power to retain its members throughout life.
- It must not be used for a mere stepping stone to other occupations.
- It must recognise its obligations to society by insisting that its members live up to an established and accepted code of ethics.

## concept of Professionalism

Professionalism is the conduct, behaviour and attitude of someone in a work or business environment. It is defined as "an ideal to which individuals and occupational groups aspire, in order to distinguish themselves from other workers". It leads to workplace success, a strong professional reputation and a high level of work ethic and excellence.

The **Merriam-Webster Dictionary** defines professionalism as "The conduct, aim, or qualities that characterises or marks a profession or a professional person".

## Attributes of Professionalism

**Specialised Knowledge** Professionals have a deep personal commitment to develop and improve their skills, hence, they possess specialised knowledge. All the business areas do not have a stable core of knowledge, they neither demand extensive knowledge nor do they have professionals with top degrees. But, the professionals work in a serious, thoughtful and sustained way to master the specialised knowledge that they need to succeed in their field and that they keep this knowledge up to date, so that they can continue to deliver the best work possible.

**Competency Professionals** know how to get the job done. They are reliable and they stick to their promises. In any case, they can't deliver their promise, they manage expectations and do their best to make the situation right. Professionals do not make excuses but focus on finding solutions.

**Honesty and Integrity** Professionals exhibit qualities such as honesty and integrity. They keep their word and can be trusted, because of that, they never compromise their value and will do the right thing even when it means taking the harder road.

**Accountability** Professionals hold themselves accountable for their thoughts, words and actions especially when they have made mistakes. This personal accountability is linked to honesty and integrity and it is a vital element of professionalism.

**Self-Regulation** Professionals remain professional under pressure as well. A customer service employee will remain calm even when facing an angry Irritated customer. Genuine professionals show respect for people around them, no matter what.

## Teaching as a Profession

To some, the essence of a profession is advanced training. Hence, the best way to professionalise teaching and upgrade teacher knowledge and skills is through professional development,

Others think that the essence of profession lies in the attitude now individual practitioners visionise their work. In this view, the best way to professionalise teaching is to instil ethos of public service and high standard and a sense of professionalism among teachers. Even for

others, the focus is on the organisational conditions, under which teachers work. In this view, the best way to professionalise teaching is to improve teacher's working conditions.

Teachers work in an environment characterised by change and uncertainty, where it might be said that change is paradoxically, one of the few constants. It is quite possible that teachers came into the profession for different reasons in different country contexts, in different economic circumstances and with varying expectations of the rewards and challenges of the role. However, common to all, there is a need for appreciation, autonomy and affiliation.

Their place within a hierarchy of needs varies country by country depending on an essential infrastructure of safety, security, working conditions, resourcing and an adequate remuneration. Therefore, it can be said that "Teaching is a profession that lies at the heart of both learning of children and young people and their social, cultural and economical development. It is crucial to transmit and implant social values, such as democracy, equality, tolerance, cultural understanding and respect for each person's fundamental freedom".

Teaching as a profession can be described as an occupation, which provides highly specialised intellectual services. It is a body of erudite knowledge, a set of attitudes and a technique, which is applied to the service of mankind through an educated group. It needs a long period of training and certification.

Thus, the teaching profession is based on long specialised, intellectual training representing a high degree of creative thought and contributing to the development of a wide range of research specialists. Teaching as a profession, also fulfils certain conditions which support it as a profession, like teachers are organised at local, state and national levels. Teaching requires careful skills and understanding. Teachers are required by law to complete certain requirements for certification and entrance into the profession,

## Professionalisation in Teaching

*Following are the indicators that are used to define profession and professionals in reference to teachers and schools*

### Credentials

The most important quality of distinguishing a profession from other kinds of occupations is the degree of expertise and complexity involved in the work itself. Professional work involves a highly complex set of skills, intellectual functioning and knowledge that are not acquired easily and not widely used.

For this reason, professions are often referred to as knowledge based occupations. Entry into the profession requires credentials. These credentials serve as screening or gate keeping devices. Their rationale is protection of the interest of the public by assuring that practitioners hold as agreed upon level of knowledge and skill.

Giving importance of credentials to professionals helps in upgrading the licensing requirements for new teachers has been an important issue in teaching (licences for teachers are known as teaching certificates issued by the central or state government). Also it has been

a source of contention. Entry in teaching should be made highly restricted, as in traditional professions. It helps in upgrading the quality and qualification of teaching and teachers.

### Induction

In addition to initial, formal training and preparation, professional work typically requires extensive training for new practitioners upon entry. Such training is designed to give the feel of an environment.

While, credentials and examinations in many professions are usually designed to assure that new entrants have a minimum or basic level of knowledge and skills. Induction programmes are designed to augment the basic level of knowledge and skills. As a result, entry to professions involves both formal and informal mechanisms of induction i.e. internships or mentoring programmes. Sometimes, these periods of induction can be prolonged and intensive.

The objective of such programmes and practises is to aid new practitioners in adjusting to the environment, to familiarise them with concrete realities of their jobs and also to provide a second opportunity to filter out those with sub-standard levels of skills and knowledge. In teaching, mentoring and induction programmes have been a subject of much discussion. It is the best way to increase the efficacy and retention of the new teachers, by assisting them in coping with the practicalities of teaching of managing groups of students and of adjusting to the schools environment,

### Authority

Professionals are considered experts in whom substantial authority is vested and professions are marked by a large degree of self-governance. The rationale behind professional authority is to place substantial levels of control in the hands of the experts. Professionals exerts substantial control over the curriculum, admissions and accreditation of professional training schools. It also sets and enforces behavioural and ethical standards for practitioners. Sometimes, this control is exerted through professional organisations.

At some other time, this control is exerted directly in work places. The distribution of power, authority and control in schools is one of the most important issues in contemporary education research and policy. Autonomy of teachers is always in question. Some researchers say that the schools are decentralised organisations, in which teachers have autonomy and discretion. Others says that schools are overly centralised, in which teachers have to give little influence over school's operations.

### Professional Development

Beyond both, pre-service training and mentoring for beginners, professionals also require ongoing in-service growth and development, throughout their career.

The underlying assumption is that to achieve professional level mastery and complex skills and knowledge is a prolonged and continuous process. Also, it is important for professionals to update their skills and knowledge. As a result, professionals take up conferences, workshops and also join associations to update their knowledge. Professional development

has been one of the most important reforms in the field of teaching. Most of the schools and colleges, both public and private, provide professional development to their teachers. Teachers participate in workshops or activities for professional development.

### Specialisation

Professionals are not generalists, amateurs, they possess expertise over a specific body of knowledge and skill. The importance of expertise to professions, is that it follows the most important attribute of profession, i.e. specialisation. In profession, a great deal of skill, training, expertise, specialisation is considered necessary and good.

In contrast to non-professions, semi or low skill occupation requires far less training and expertise than professions Professionalisation of teachers argues that there is a need reform in teachers specialisation, specially at the elementary school level, because it does not address the needs of the whole child, which leads to alienation of students. Also, teachers are assigned to teach subjects, which do not match their fields of speciality and training.

### Compensation and Prestige

Professionals are well compensated and are provided with relatively high salary and benefits levels throughout their career span. The lengthy training and complexity of knowledge and skills requires high levels of compensation, recruit and retain capable and motivated individuals. Also, professions are high status and high prestige occupations They are respected and envied. Attitude, public perceptions of other occupations are less prestigious. Teaching is a female dominated profession and is rated in the middle. The status of teaching is increasing in today's time.

### Professional Ethics of Teachers

Every profession has its own professional ethics that are different from general ethics. The word "ethics" adds the professional obligation for an individual, that he/she has to fulfil. Institutions have code of conduct, but not professional ethics.

A code of conduct is a sophisticated version of do's and don'ts. On the other hand, professional ethics give certain sets of broad principles, derived from deep values and reflection on the nature and role of profession in the society. The main aim of education is to develop citizens, who will safeguard, strengthen and improve democracy and maintain national ideals. The quality of education reflects the ideals, motives and conduct of the members of the teaching profession. The members of the teaching profession have the obligation to conduct themselves in accordance with the code and ethics of the profession. Code of professional ethics are adopted as a guide by teachers. They apply to all the persons engaged in the professional aspects of education at elementary, secondary and college level.

The teaching profession has slowly evolved a code of conduct and professional ethics. These code of ethics are established to protect the society from the incompetent practitioner. The codes formulated in the teaching profession, prohibits its members from engaging in undesirable behaviour that can bring the profession to trouble. Code of professional ethics are adopted as a guide by teachers. They apply to all the persons engaged in the professional and college level.

*The teachers as professionals are accountable to teaching, society, students and parents.*

### Ethics Towards Students

Effective teaching is the main aim of teaching and it occurs with the feeling of mutual respect between teachers and students. As a teacher, he/she should understand them, be just and courteous, and promote a spirit of inquiry, fellowship and joy in the students.

The interest of the teachers should lie in the welfare of students . Youngsters need support and appreciation from the adults and specially from teachers. It helps in the development of self-confidence. So, the teacher should inspire students and work with them to create and maintain a pleasant and attractive learning environment. And while working with students, the teacher should be friendly and empathetic.

Also, the teacher should recognise the difference among students and seeks to meet their individual needs. And to encourage students, to formulate and work for high individual goals in the development of their physical, intellectual, creative and spiritual endowments.

### Ethics Towards Parents

There should be mutual cooperation between home and school environments. The establishment of a desirable learning environment in the classroom requires working together on the part of student and teacher and providing the child with the guidance he/she needs with the mutual coordination of parents and teachers.

The teacher should make friendly and informative contacts with the parents. Parents and teachers can help each other in understanding the personality of the child. Their combined knowledge can help in the overall development of the child. Therefore, the teacher keeps the parents informed about the progress of their child and also discrete the information received from the parents.

### Ethics Towards Society

Apart from parents and students, it is important for the teacher to develop favourable and useful relationships within the community. Education is the most effective way to make these relationships friendly and cooperative. The teaching profession occupies a position of trust in society. Thus, the teacher should set an example in citizenship, by performing the duties and participating in community activities and also to promote the public good and uphold dignity of the society.

### Ethics Towards Administration

A teacher also establishes an agreeable relationship with school supervisors, administrators and the Board of Education. The teacher should perform his/her duties and support school policies and also interpret them intelligently. The teacher should cooperate with school's officials in an effort to improve learning opportunities.



## Factors Affecting Teacher's Development

*The personal and contextual factors affecting teacher's development are as follows*

### Psychological Factors

**Interest** - The teacher should be able to make the lesson interesting, so that the students are eager to learn.

**Intelligence** - The teacher should be intelligent enough to know how to manoeuvre the class.

**Attitude** - The teacher should have the right and positive attitude towards teaching. If the attitude is positive, teachers can create love for education, hope, good ideas and development.

**Feelings** - Teachers should have positive feelings and emotions. He/she has to eradicate the feelings of fear and anger from the mind of a young learner.

**Aptitude** Teachers should know how to deal with students, having no aptitude for the subject.

**Mental health** is a state of well-being, in which every individual realises his or her own potential, can cope with the normal stresses of life, and can work productively and fruitfully.

**Ability** Teachers should get to know their students and then they can help them to learn the lesson content by teaching to their strengths.

### Biological Factors

**Maturity:** A teacher should be mature enough to know the student's unmet needs. Meeting certain needs can also act as a motivator and significantly enhance learning.

**Physical Health** It is one of the most important aspects of teacher development. The teacher should be able to take care of themselves as well as the students.

**Self-Concept** Teachers can incorporate activities into the learning environment for their students and for developing their self-concept.

**Proper Sleep** A good and proper sleep makes the teacher fresh, active, competent and ready for working and learning.

### Social Factors

**Social Expectation** It is an internalised norm for individuals and organisations and for society, as a whole. Teachers should abide by their norms.

**Cultural Demand** Cultural values include particular religious beliefs often shape the way of living for a teacher.

**Achievement** Teacher should use a variety of instructional technique appealing to different interest and learning orientation, to make sure that every student has a taste of achievement

## ICT Integration

ICT integration is defined as the use of ICT to introduce, reinforce, supplement and extend skills (Pisapia, 1994).

According to **Kennewell**, "Integration of ICT in teaching requires understanding at a deeper level to facilitate the development of strategies and processes to identify opportunities, solve problems and evaluate solutions".

According to **Bruniges**, "ICT integration is a strategy to integrate Information and Communication Technology into all facts of education and training, including the administrative functions and e-business models required to support learning".

Over the last few decades, the rapid growth of ICT has become one of the most important topics discussed by the scholars in education. This is due to the capability of ICT to provide a dynamic and proactive teaching and learning environment. In line with the current digital era, teachers are required to integrate ICT in their daily teaching and replace their traditional methods with modern tools and facilities.

Its integration has been attracting a great deal of interest among researchers in professional development communities and human-computer interaction circles. At the same time, ICT integration has been fueling contentions amongst stakeholders and administrators of ICT in institutes of higher learning, schools and corporate training environments. Adoption issues surrounding ICT integration are contested at every level, all aimed at preventing failure and maximising return on investment. Schools use a diverse set of ICT tools to communicate, create, disseminate, store, and manage information. In some contexts, ICT has also become an integral to the as teaching-learning interaction, through such approaches replacing chalkboards with interactive digital whiteboards , using student's own smartphones or other devices for learning during class time, and the **Flipped Classroom Model**, where students watch lectures at home on the computer and use classroom time for more interactive exercises.

When teachers are digitally literate and trained to use ICT, these approaches can lead to higher order thinking skills that will provide creative and individualised options for students to express their understandings, and leave students better prepared to deal with ongoing technological change in society and the workplace.

The purpose of integrating ICT is to improve and increase the quality, accessibility and cost-efficiency of the delivery of education, while taking advantage of the benefits of networking learning communities, together to equip them to face the challenges of global competition.

## ICT Integration in Education

ICTs have become the most basic building block of modern industrial society in a very short time. Mastering information technology, understanding basic skills and the concept of ICT are now highly regarded by many countries. ICT has been used at an amazing rate for instruction among teachers.

ICT can work in a number of ways as follows

- It can be used to train students in skills, which they will need for further education and as an ongoing learning process throughout the rest of their lives and for future jobs.
- It can provide access information and communication outside the classroom via the internet.
- It can be used to support teacher's development via external networks.
- It can support and potentially transform the teaching and learning process.

Both students and teachers need to learn to trust technology. Teachers need to be confident enough in using various ICT tools to build their trust in technology. Without teacher's competency, ICT cannot be put to a good use for instructional delivery. In this regard, a teacher should be able to use various ICT tools including chat rooms, word processing skills, web pages authoring, File Transfer Protocol (FTP), compress and decompress a file and so on.

## Quality Enhancement of Teacher Education

understood is its collaboration; Teacher education is a global profession that needs to be properly. If teacher education professionalised, it would produce teachers with professional outlook and professional work ethics. Effective professional development practice promotes collegiality and encourages risk taking and experimentation. It also involves teacher educators in decision-making on the basis of their experiences and it helps them to reflect on as well as put into practice what they learn. Professionally, powerful teaching is very important and is increasing in our contemporary society. Due to the developments in these fields, the quality of teacher's education is better in the 21st century than in the 20th century. The professional development of teachers has received a deal of attention in all countries, including India. According to NCTE, "Teacher is the most important great

element in any educational program. He plays a central role in implementation of education processes at any stage. The level of achievement of the learner is determined by teacher competence".

So, the quality of education basically depends on the quality of teachers.

## Developing Professionalism for Teacher Educator

Teacher professionalism contains three essential characteristics

### Competence

It is important in an educator's pursuit of excellence. Generally, it focuses on three important ideas i.e. preparation, knowledge of subject area and defined pedagogy. Preparation prepares the professional for the adversity of the classroom. From language and cultural barriers to socio-economic differences, all educators face deterrents in the classroom that must be broken down by individualised techniques. Decision-making by well-trained professionals allows individual student's needs to be met more precisely and promotes improvement in overall learning. Thus, by bridging these barriers, the educator will be better prepared for classroom management and create an effective learning environment.

Furthermore, by doing this, the professional teacher leads students by his or her example i.e. one who is prepared for difficulties will be able to overcome them. A professional educator

must have a **strong knowledge of his / her subject area**. Then, he/she has the opportunity to concern himself/herself with preparing innovative techniques to teach material rather than spending a significant amount of time studying the material.

With the advantage of knowing one's curriculum material well, the educator has more confidence in their teachings, having already placed significant thought on the material being taught. Thus, a professional is able to dwell on how to relate subject matter to the students and their cultures in an original method. The final portion of competence is discovering and assuming a defined pedagogy.

A professional teacher who has a defined pedagogy has already journeyed through several trials to discover which pedagogical techniques are more effective. Although, this may take years to fine-tune, a professional is willing to self-evaluate his/her pedagogy as he/she develops it, and apply one's ideas to a practical situation.

Furthermore, by acquiring a **defined pedagogy**, a professional creates more autonomy for himself/herself, allowing a partial release from the constraints created by the administration, school board or parents.

### Performance

It is the ability to effectively teach the concepts of a curriculum. However, this is performance defined at its most fundamental level. As individuals, professionals have the right to perform their work as they see fit, based on knowledge acquired through specialised training. As such, performance is derived from both pre-meditated and improvisational techniques.

A professional teacher educates, so that students learn concepts and apply them to their lives. Although this undermines the school's emphasis on state test results, a quality educator prepares for the tests through this unique style of applying to his/her student's lives. Thus, the application of these concepts must be within the bounds of student's lives. Furthermore, an educator who has a high standard of performance is reliable and dedicated. This type of educator becomes an active teacher rather than a passive teacher, showing the students a genuine interest in their progress as a student.

### Conduct

It is the manner in which an educator carries himself/ herself is a reflection on one's classroom, school, community and educational system.

It is a representation of how well one takes care of himself/ herself, from aesthetics to language and behaviour. However, these are minor qualities of conduct. It also includes one's ability to initiate and to maintain quality

communication with all the people involved in education i.e. students, fellow teachers, school board, administration, and parents. It is through energetic communication by a professional that initiates understanding, whether it is a student grasping to their potential or the professional voicing their displeasure on a newly implemented regulation.

A professional teacher desires to locate effective communicative skills to achieve preferred educational goals. In conclusion, a completed definition of teacher professionalism far exceeds the simple notion that a teacher be prepared in a certain manner. A professional is trained to handle all situations, as most episodes in the classroom require quick thinking. Also, teacher professionalism extends beyond one's ability to understand content, the educator must discover, if the students are being reached in an effective way,

With the role of teacher becoming more autonomous, an educator must be competent in their studies, perform well under the eye of the administration and parents, while maintaining good conduct to facilitate quality communication.

## Qualities of a Good Teacher

*Good education system needs a good quality professional teacher.*

Following are the qualities that the teacher must possess

- Sufficient knowledge of subject matter to be able to teach with confidence.
- Knowledge and skills in a range of appropriate and varied teaching methodologies.
- Fluency in the language of instruction.
- Knowledge of sensitivity and interest in young learners. .
- Ability to reflect on teaching practises and children's responses. .
- Ability to modify teaching/learning approaches as a result of reflection.
- Ability to create and sustain an effective learning environment. .
- Understanding of the curriculum and its purposes, particularly when reform programs and paradigms of teaching and learning are introduced. . new
- General professionalism, good morale, and dedication to the goals of teaching. Ability to communicate effectively.
- Ability to communicate enthusiasm for learning to students.
- Interest in students as individuals, sense of caring and responsibility for helping them learn and become good people, and a sense of compassion.
- Good character, sense of ethics, and personal discipline.
- Ability to work with others and to build good relationships with the educational institutions and communities.

## Innovation in Teacher Education

Education is the foundation of our economy. What and how we learn in school determines what we will become individuals and our success throughout our life. It informs how we will solve problems, how we will work with others, and how we will look at the world around us. In today's world, innovation, economy and education becomes even more important for developing the next generation of innovators and creative thinkers.

The word 'innovation' is derived from the latin word 'innovate' which means 'to change something into something new' . It is a promotion of new ideas and practises in education and training. Innovations should be done in each and every aspect of education, like methodology, curriculum, research and evaluation. Many countries are using different kinds of innovative

approaches, such as school clusters, field based training, school self-review and development, distance learning methods and visiting advisors”.

## Innovative Programs in Teacher Education

Various innovative programs in teacher education have been initiated from time to time to bring quality improvement in the system. These attempts were successful but due to some challenges fulfilment of all objectives was not witnessed. Some of these programs are as follows

Master of Educational Technology (Computer Applications) by SNDT, University, Mumbai.

- M.Tech (Educational Technology) by Kurukshetra University, Kurukshetra.
- Four years, Integrated Program of Teacher Education, Kurukshetra University, Kurukshetra (1955).
- Four years, Integrated Program of Teacher Education, RIE, NCERT (1963).
- HSPT Training Teachers, Eklavya, MP (1982).
- B.Sc. in Teaching Technology by Sikkim Manipal University, Activity Based Teacher Education Program, DAVV, Indore (1991).
- Personalised Teacher Education Program, Lucknow University, Lucknow (1996).
- Comprehensive Teacher Education Program, Gandhi Shikshan Bhavan College of Education, Mumbai University, Mumbai (2000).
- Early Faculty Induction Program (EFIP), under QIP by . AICTE, New Delhi.
- University of Teacher Education, Chennai, Tamil Nadu (2008).
- IGNOU Institute of Professional Competency Advancement of Teachers (IIPCAT, 2009), IGNOU, India
- Indian Institute of Teacher Education, Gujarat (Bill 4, 2010).
- Two years, B.Ed Program of Secondary Teacher Education by NCTE (2014).
- The central government and NCTE have planned to change the present two years B.Ed Program into a four years course in a phased manner. Further, changing curriculum and introducing some more innovative things will definitely be a welcoming move to improve the quality of teachers.

## Aspects Given by NCTE

Innovations have been done in pre-service education, like introduction of ICT/technology in teacher education, professional development of teacher educators, Public Private Partnership (PPP) in teacher education and improving monitoring mechanisms. There is an urgent need for creating an innovative learning environment for teachers in order to explore technology and devise creative and meaningful approaches to integrate technology into their future classrooms (Beaudin and Madden, 2002). The following aspects were emphasised by NCTE in teacher education

- School Based Teacher Education Observation and practice teaching are no longer undertaken in the laboratory schools of the colleges of education and teacher training colleges. They occur in the government or private school for longer duration at least for six months and in two phases.

- Practicum Based Teacher Education Practical aspect is more emphasised in B.Ed. course. The curriculum involves a structured program in which the pupil teachers work with students and the community. There is integration of theory and practice through additional field based experiences.
- Teacher educators are highly qualified and well trained in the latest technology to fulfil the need of course.
- Evaluation includes continuous assessment, tests and exams.
- More emphasis is given on strategy, instructional technology, human development and linking school knowledge with community life.
- There is a provision of a comprehensive curriculum which includes various subjects, like lifelong education, ICT, yoga and gender education and community education.
- Modern technologies, like e-mail, blog, web- based learning, video conferencing, virtual and online learning play an important role in enhancing learner's capacity to investigate and draw conclusions.

Teachers should know about how to use the best technology for preparing lessons in order to achieve pedagogical goals. They can use ICT to explore and learn new courses and skills, participate in community and group activities and discussions to understand newer perspectives. Though many reforms or innovative practises are implemented in teacher education, some resisting factors prevent it from being successful.

### Barriers to Innovation

- Many institutions are suffering from paucity of funds and physical facilities, like infrastructure, laboratories, equipment and manpower. They are not able to put things into action.
- Teacher educators are not able to imply innovations in their institutions as there is no support from the management and administration. No facilities are provided to them.
- Many teacher educators are not aware of modern trends in their field as they are not allowed to attend any refresher/ orientation courses, workshops and conferences to avoid any disturbance in their rigid routine work.
- Sometimes teacher educators are not willing to practice new ideas as there is no motivation for this. They have not yet developed any research aptitude as well as attitude.
- There is no flexibility in the curriculum and examination system of teacher training institutions. They work in a rigid framework which is the biggest stumbling block in practising innovative ideas.
- Professional rivalries, lack of cooperation among teacher educators and lack of expertise are some important factors in preventing innovations in institutions.
- Pupil teachers are not having required aptitude as well as attitude to give desirable output. They entered the system just to have degrees.