CHAPTER - II

PHILOSOPHICAL BASE OF IN-SERVICE TEACHER EDUCATION

CONCEPT OF IN-SERVICE TEACHER EDUCATION:

"In order to make the professional preparation of teacher effective, teacher education must be brought into main stream of the academic life on the universities and school life on one hand and educational development on the other" says the education commission 1964, 66". The commission also states that "the isolation of teacher education from the university and school must be removed".

In-service education is a basic need of any professional worker and facilities ought to be provided by those responsible in this field. Institutions can extend their services outside their premises either through the visits of their staff for consultation, lectures or conducting courses, or through lending of books or equipments. Such services are called extension services - those that are extended beyond the physical limits of an institution of these, the services which aim at promoting the professional growth of teachers by adding to their repertoire of skills and knowledge, may be termed specifically by the extension education activities of the institution. Professional education
impacted to teachers outside the institutional setting.

Education tends to be a regular process if it is punctuated by reinforcement and by way of in-service courses both for content enrichment and for keeping abreast the explosion of knowledge and innovations in the broad spectrum of learning. Moreover, the process of educational reconstruction also gains strength and new vigour if it is regularly supported by the feedback received from the consumers, teachers, and the learners. Extension services centres are the model agencies and resource centres for the noble cause.

Dr. Humayum Kapir said that - "Teacher are bound to play an increasingly important role in recent India. The whole problem of Indian life is changing. In this transitional period vast educational changes are taking place and teachers cannot afford to fail behind. There must, therefore, be a continuous process of educational and training throughout the professional career of the teacher. In fact such In-service training at regular intervals is just as important as the initial training they receive before they join the profession.

Lowrence deserves our thanks for showing in broad terms the need for such continuous education and suggesting way in which such training can be provided."
Reading in In-service education the book published by Sarder Patel University, Vallabhi Vidyanagar in 1968 in the chapter of "Towards the Theory of educational extension". Shri. R.H. Dave explain the need and concept of in-service education - "As the concept of educational extension is yet new in the Indian educational parlance, it is necessary to define it and to identify its characteristic features. It is also necessary to establish its relationship with other relevant terms and concepts such as pre-service teacher education, in-service teacher education, higher education, and even adult education. He defined - "Extension education may be defined as continuing education of teachers and other educators which commences after initial professional education is over and which leads to the improvement of professional competence of educators all throughout their career".

Thus educational extension is a stage of education and is also a part of total professional education of teachers and other educators. It is often described as in-service teacher education because this education is extended to teachers and other educators while they are in-service. A teacher's college which has \textit{wither to or fore} been in charge of pre-service training of teachers has now to expand its concept of teachers.
education and has to extend its function by providing continuous education to educators in service".

Some Major Assumptions:

Educational extension is only one type of continuing education. It specifically pertains to the professional personnel in the field of education. But continuing education is necessary in any profession which is growing and changing rapidly. "The concept of educational extension is briefly indicated earlier and the emerging programmes and practices are based on certain fundamental assumptions. Most of the assumptions have already been stated either implicitly or explicitly while discussing the concept in preceding paragraphs. They are now brought together and enumerated as follows:-

1) Education of the educator continues all throughout his professional career in a planned manner.

2) Educational extension will contribute to the qualitative improvement of education.

3) The pre-service training provided to the teacher is not adequate for the rest of his professional career, for discharging his duties effectively.
4) There are many areas of human endeavour in which changes occur and these changes demand corresponding changes in education and therefore in the various field expand rapidly.

Changes in the basic and theories in allied disciplines such as psychology and sociology necessitate corresponding changes in educational theory and practice. New pedagogical techniques and skill also innovated. Social changes are also fairly rapid in the form of acceptance of new social values, development of new social needs and demands, and so forth. They have educational implications. In a developing country like India, even the school population and school climate keep continually changing. All these new developments, innovations and changes necessitate corresponding changes to be brought out in educational objectives, curricula, textual content, teaching methods, instructional materials, and so forth without delay so that education remains dynamic, upto date and responsive educational extension is capable of preparing in-service teachers and other educators in the best possible manner for bringing these required changes in education.
5) In order to bring about changes in education corresponding to the changes in other related areas, it is necessary to improve the competence of the teacher in terms of his knowledge, skills, interest and attitudes as an essential means of improving education.

6) In addition to mass scale changes to be brought out in education from time to time, individual teachers, small groups of teachers, individual schools or small groups of school may feel the need of bringing about certain change and aspire to solve certain specific academic problems. Educational extension is capable of helping these individuals or groups in meeting their academic needs and in solving their academic problems. (5)

3.2 NEED OF IN-SERVICE EDUCATION:

The need of the in-service education of teacher was recognised as early as 1904 in Lord Curzon's Resolution on Educational policy. The need for a regular programme of in-service education was stressed in subsequent reports of various commission as below:-

1) Woods Despach .. (1854)
2) Hartog committee .. (1929)
3) Education in India
   -Shri K.S.Wakil
4) Education of teacher in India
   -Shri S.N.Mukarjee
5) University Education Comission (1949)
6) Secondary Education Comission (1952)
7) Indian Education Comission (1964)
8) Naik Committee (1965)
9) National Policy in Education (1986)

1) Explosion of Knowledge:

An educated man's need or urge is that the he should get recognition from his fellow men. His individuality be respected. Education process itself is inter personal interaction. Education has always been the corner stone of economic and social development. It now is becomming even more important as technological change and new methods of production. Teachers have a uptodate knowledge in his subject because knowledge is expanding day to day.

There has been a great explosion of knowledge during the last few decades. In a traditional society the stock of knowledge is limited and grows slowly so that the main aim of education is interpreted to be its preservation. In a modern soiety on the other hand, the stock of knowledge is far greater and the pace of its growth is infinitely quicker. One of the main task of education in a modern society is to keep pace with this advance knowledge. In such a society, knowledge
is inevitable, it *causes* to be something to be received passively, it is something to be actively discovered. (6)

It is extraordinary that our school teachers learn all of whatever subject they teach before reaching the age of twenty four or twenty five and then all their further education is left to 'experience' which in most cases, is another name for stagnation. We must realize that experience needs to be supplemented by experiment before reaching its fullness and that a teacher, to keep alive and fresh, should become a learner from time to time. "Constant outpouring needs constant teaching. Practice must be reinforced by theory and the old must be constantly tasted by the new."

Teachers should develop a thirst for new knowledge, new skills and new techniques in teaching. They must make full use of libraries and reading rooms. This is self development. During the annual summer holidays, they should attend short term refresher courses or other professional courses. There should be a systematic procedure by which a certain number of teachers are able to attend such courses every year. The demand must be stressed by the teachers themselves. All teachers, in school system, in co-operation with the teachers college faculty serving the area an and the education officers, could discuss how such courses should be organised to provided new insight, when they could be held and when it would be convenient for them to
Since education is a life long process; extension services are essential part of the educational system. No formed training in a college or University can fully prepare a person for professional services. The best it can do, is to bring him a breast of existing knowledge and instill in him the attitude which will cause him to speak new knowledge as he progresses in his professional career. Without this attitude and desire, the professional man or woman soon becomes 'Outdated' and his services are limited and ineffective; in some instances even dangerous because he acts under wrong knowledge.

During the 20 years, the world has been witnessing three kinds of explosion; which actually are an aftermath of world war II. The explosion of knowledge resulting from the intensive research in science and technology conducted in the interest of winning the war. This explosion has caused an unprecedented educational unsettlement even in the advanced countries. The current educational systems are being re-exmined by educationists and social scientists to meet the challenge of explosion of scientific knowledge. Moreover, the developing countries are pressing them for technical and economic assistance to meet the explosion of the rising expectations of the
newly independent people who want a better living standard and more education.

With the coming of independence, new ideas flowed into our educational practices enlarging their scope and depth to a wholly unprecedented degree. The change coming to quick succession within a short span of ten years threw up an exacting challenge to the teacher educator. It was found that the preparation which the training institutions had hitherto given to their students could not equip them sufficiently to handle with confidence or conviction to the new subjects that were introduced in our curricula. Nor did it help them to adopt the new approaches that were essential in an educational system which has to adopt itself to different goals and purposes.

It was thus clear that unless we took immediate steps to prepare our teachers in service for the new challenge, we would not be able to implement our schemes of re-organisation with any measure of success. To institute an organised system of in-service training for teachers to maintain their professional competence become an imperative necessity.
New knowledge in Education:

In 20th century development of science, new field of education arises like communication technology (Radio, T.V., Telephone, Satellite Nuclear science, weather technology.) More specifically 'Media' refers to films, filmstrips, recording etc. and programmed instruction, computer assisted instruction, educational T.V. etc.

The educational philosophies and techniques are dynamic. Old order changes yielding place to new. The teachers should be acquainted with the improved techniques. The techniques which are proved more effective and fruitful and should not be discussed theoretically but we should pace forward to implement them. This necessity massive orientation programme all over the country. For this in-service education should be a regular feature of our educational system.

Teacher of science, twenty five years ago, he failed to teach science as a constantly evolving experimental subject, failed to teach science properly, no matter how skillful he was in imparting the known facts of science, only the fundamental principles and concepts of science, accompanied by an initiative man facing a lifetime. Facts and applications at any one time become absolute in a few short years.
The same is true with other fields, where research and constant investigation reveal new data requiring new interpretations and beliefs. This is especially true in the social sciences, economic politics, international affairs, geographical boundaries, natural etc. resources. All these areas are in a constant state of revision.

The system specially, the content of education has to change from time to time to remain relevant to socio-economic and political needs of a country. Today we are living in a very fast changing world using high technology, such as computers. A world which is brought very close together as a result of satellite communication and high speed transportation is simultaneously torn apart on the basis of stages of development, availability of natural resources and racism. The teachers have the responsibility of changing the tone and the content of education to make it meaningful for the young, who would have to cope with. It also works for a better future.

School curricula, learning material as also teaching, learning strategies are likely to change and would continue to change at a much faster speed than institutions entrusted with the task of teacher preparation have been used to, it is not just a question of change in curricula of teacher education at one point.
of time; for a period of time, but what is important is the readiness to change at a faster rate, pointing to basic change in attitudes and styles. More specifically, the electronic communication media in general and their use in education in particular. Radio broadcasts are being beamed to schools from nearly seventy stations, so as are television lessons from several major stations, and to rural primary schools in six stages through satellite. Video cassette records (VCRs) are available easily today and can be used for organizing teaching, learning in classrooms of teacher education at least. A great deal of informal education is available to one and all through radio and television. Have we taken sufficient notice of it in preparing teachers to receive it positively or to cope with it? The curricula of only very few universities have responded to the change.

Computers have been introduced in some secondary schools at the initiative of the Government of India. Private schools in cities have gone for them in a big way. Computer education is likely to expand at a fairly fast rate to need timely attention from institutions preparing teachers.

Super Specialization :-

At the flag end of 20th century due to explosion of knowledge sub-branches are coming to the
the educational subjects. Some new sub-branches are getting importance. i.e. Physics, Biology, Medical science, Social science, Law faculty and education faculty etc. getting importance specialization.

Shri. Alvin Toffler in his book _Futur shock_ said that:

"We have scarcely touched on the computer revolution and the far-amplifying changes that must follow in its churning wake. We have barely mentioned the implications of the thrust into outer space, an adventure that could before the new millenium arrives, change all our lives and attitudes in radical and as yet unpredicated ways (What would happen if an astronaut or space vehicle returned to earth contaminated with some fast-multiplying, death dealing micro-organism)? We have said nothing about the laser, the holograph, the powerful new instruments of personal and mass communication, the new technologies of crime and espionage, new forms of transport and construction, the developing horror of chemical and bacteriological warfare techniques, the radiant promise of solar energy, the coming discover of life in a test-tube, the startling new tools and techniques for educations, and an endless list of other fields in which high impact changes lie just ahead."
In the coming decades, advances in all these fields will fire off like series of rockets carrying us out of the past, plunging us deeper into a steady state. It, too, will quiver and crack and roar as it suffers jolt after jolt of high energy change. For the individual who wishes to live in his time, to be a part of future, the super industrial revolution offers no success from change. It offers no return to the familiar past. It offers only the highly combustible mixture of transience and novelty.

This massive injection of speed and novelty into the fabric of society will force us not merely to cope more rapidly with familiar situations, events and moral dilemmas, but to at a progressively faster rate with situations, that are for us, decidedly, unfamiliar, 'first time' situations, strange, irregular, unpredictable.

This will significantly alter the balance that prevails in any society between the familiar and unfamiliar elements in the daily life of its people; between the routine and non-routine, the predictable and unpredictable. The relationship between these two kinds of daily life elements can be called the 'novelty ratio' of the society and as the level of newness or novelty rises, less of life appears subject to our routine forms of coping behaviours.
Social Cultural Change:

The empirical character of education for individual growth and social development is now accepted by every one. Investment in the education of its youth is considered as most vital by all modern nations. In a technical sense, however, education refers to the process by which society, through its different institutions, deliberately transmitting its cultural heritage to its young—its accumulated value, knowledge and skills from one generation to another.

Indian society is undergoing a rapid change and the change is definitely a departure from non-technical culture. The first change that is noticed is in the transformation of cognitive capital of the society. This cognitive capital is nothing else but the intellectual resources such as the means of communications and transport, the techniques of industry, the techniques of amusement, science, fine arts, prevailing ideals and popular beliefs etc. The change in these resources brings a corresponding change in the social institutions. The school as one of such institutions cannot naturally remain aloof. This type of change has its consequential effect on education. The first demand on education, therefore, is modernisation of traditional society. The technological goals very
frequently expressed are in tune with the changing society and its cognitive capital.

Education in the modern society is concerned more with the changing knowledge. This brings a tremendous responsibility on educational institutions. The schools have to contribute now to the pursuit of knowledge to providing educational opportunities to all, to providing educational responsibility to search out talent.

To meet with the social cultural change, challenges, responses have to be thought of educationally, in terms of innovations, new pattern of teaching, new content, programme reorganisation, and new programmes for teacher education.

The extension service centre has to pick up the right type of teachers from among those who lead, who follow who rest content with the status quo, and who resist all change.

Age of Information:

At present computer has become an important machine in international management. Today computer is widely used in business and research computer is in use in England, America since 1960. Developing country like India computer is used in education industry,
etc.

Railway, Aeoplane service, Banks, Factories/ on large
the
scale since/year 1980. Its applications are enormous.
The computer can do million calculations within a
second. It can add, substract or multiply. It has an
addition, a capacity for storing or "memorising" a long
amount of information and producing or retrieving any
of them when called for. It's actions are determined by
the control unit in accordance with a programme. It
has a memory 'built into it electronically. In addition
to mathematical operations, we can 'feed' the computer
with all kinds of information. To feed the computer in
this way is to 'Programme' at for specific purposes.
Now you can get the answers from computer to your
problems based on the programmed information. In
simple terms a computer is a 'glorified calculator' with
a difference.

"A computer can do everything. It used in
banks, factories, laboratories, libraries, hospitals, and
research institutions. In pig industries a robot can
take the place of human worker in a dangerous
situation. A robot is a computerised man like machine.
Computer can be used even as teaching machines."
Advantages of CAI:

Computers assisted instruction prove better than all other aids in several respects. There is not only swing of time in learning but it is also performs miracles in processing the performance data. The large amount of information stored in the computer is made available to the learner more rapidly than any other medium.

Teachers and CAI:

Computer assisted instructions is not to exclude the teacher from the classroom. They can hereafter work in areas like evaluation, planning, curricular revision, guidance and human relations. Although we cannot forecast the areas wherein computers may be helpful in future, the possibilities of their effective use in the educational scene are enormous. The class room teacher can build up instructional system using the available facilities and innovating needed media.

IMPORTANCE OF IN-SERVICE TEACHER EDUCATION:

The principle of decentralization is accepted in all fields of life and education can not be an exception to it. Education and life are so much interdependent that in practice no guidance can be given from a far off distance.
The extension service is especially meant for improvement of education in classroom teaching, techniques, organization, administration of schools, its activities and so on.

The importance of In-Service teacher education. Lawrence H.S.S.

"Teachers should develop a thirst for new knowledge, new skills and new techniques in teaching. They must make full use of libraries and reading rooms. This is self development. During the annual summer holidays, they could attend short term refresher courses or other professional courses. There should be systematic procedure by which every year a certain number of teachers are able to attend such courses. The demand must be stressed by the teacher themselves. All teachers is a school system, in co-operation with the teacher's college faculty serving the area and the education officers, could discuss how such courses should be organised to provide new insight, when they could be held and when it would be convenient for them to attend.

The concept of the in-service education of teachers is motivated by needs which are different from those influencing other training requirements in society. Thus the concept of in-service education for teacher is
influenced by the changing needs and ambitions of students, teacher experiences gained since beginning professional practice. The experience of teachers who have contributed to their specialization, incentives encouraging the teacher to teachers professional growth and self continue his education, undertake self education, and incentives encouraging self evaluation of professional performance and mission fulfilment.

J.Paul Leonard, said "since education is a life long process extension services are an essential part of the educational system. No formal training in a college or university can fully prepare a person for professional services, the best it can do is to bring him breast of existing knowledge as he progresses in his professional career without the attitude and desire, the professional man or woman soon becomes "out dated" and his service limited and ineffective in some instances even dangerous, because he acts under wrong knowledge.

Educational extension has recently confined itself to the programme of inservice education, which it evers, will bring in desired professional growth amongst the teachers. Now the professional growth of the teacher Community, at all levels of school education can never become possible unless the techers accept the responsibility of it on their own.
It is up to the teachers to grow themselves in the long run though it would be quite legitimate on their part to expect an institution giving them an inspiration for initiation from without. The extension services have been instituted by the centre and the states will only be able to set the ball rolling. The teachers of their own will have to take up the challenge and respond to the call given to them by these external agencies.

To Make a Good Teacher:

The second need of in-service education is to make a good teacher. The centre, by working with the school systems, encourages teachers to experiment individually and in groups with new ideas for the organisation of classes, of content, of curriculum patterns, of experimental practices and assists teachers in drawing conclusions and in putting into use the changes proved effective. A centre becomes a source for reading, discussing and exchanging ideas. The centre guides a teacher with additional functions of counsellor, research and development, audio visual technology, computer technology simulation methods and educational games, environmental education, and education for peace and disarmament. "Development of teachers professional growth" Report of the committee on teachers education in Maharashtra State recommended -
"In raising the cry for quality teacher" are not alone. All developing countries and even some of the advanced countries are gripped by an anxiety to secure new teachers of quality and upgrade the quality of those already in profession. The growth of science and technology has been so phenomenal in recent years that it has set into motion radical changes in the very nature of the social organization of old and new nations and compelled them to review and recast their patterns at living into appropriate new readjusting the educational system and placing it to the hands of teachers who are sufficiently able and trained to make it an instrument of social change, is the most important measure for answering the challenge of this "age of science". It would be useful for use to know the thinking so far done by others on the origins of the challenge of change and the methods for grappling with it successfully."

The past war 'explosions' during the past 20 years the world has been witnessing three kinds of explosions' which actually are an aftermath of world war II, The explosion of knowledge resulting from the intensive research in science and technology conducted in the interest of winning war II. The explosion of rising expectations in the developing and
partially developed countries which become independent after war. The explosion of population all over the world.

It is quite an accepted fact that the progress of nation or society depends on the strength of any educational system largely depends on the quality of its teachers. All professions where new changes and innovations come innovations come about at a rapid pace and where these new innovations and development are put to use without delay, extension programmes are necessary for the purpose of providing continued education to the practitioners. The teacher assumes a significance place in the process of education. He is the persons who makes or mark the pupil's development to a large extent. The performance of teaches affects the tone of the school considerable along with other factor like curriculum, text books, school environment etc. With the fast expansion of education facilities, the teacher is expected to understand his role in all respects and play it effectively so as to face the challenge posed by the modern times and fast expanding technology. Education is a life-long process and hence the teacher development should also go on continuously throughout his career. Teacher vary on their basic equipment mental or physical, psychological or social
and that is why they are required to be provided with an operational plan, leading to pupil's development. The strategy of self development is expected to motivate them for increasing their professional development and help in raising the standard of school education.

Kundu, C.L. rightly pointed out of all different factors which influence the quality of education and its contribution to national development. The quality competence and character of teachers are undoubtedly the most significant. Nothing is more important than securing a sufficient supply of high quality recruits to the training profession providing them with the best possible professional preparation and creative satisfactory conditions of work in which they can be fully effective and for achieving the 'most significant' and making them 'fully effective' what we need is a properly planned, effectively organised and efficiently executed system of teacher education which includes both pre-service and in-service".

Teachers to take more Responsibility for Curriculum And Instructional Decisions:

While reconstructioning a new curriculum for a new social order, problems arising as a result of changes are to be taken into consideration, the problems
in the form of explosion of knowledge conservative teachers, traditionalism and authoritarianism the fast changing complexion of the class structure in school.

The Government of India adopted 10 + 2 +3 pattern of education for all the state. Various patterns prevailed in different parts of the state. With the introduction of the new pattern the uniform school curriculum came into existence. Revision of the courses provided an opportunity to upgrade and modernise the content in subject like science and mathematics. It also introduced new subject like work experience, social service, socially useful productive work (SUPW) English and mathematics assumed an important position of compulsory subjects. The scheme of evaluation also underwent a radical change with the introduction of objective and short answer questions. The cumulative impact of all these reforms in the pattern, curriculum and evaluation approach ultimately was to reflect in secondary school certificate examination, a public examination, conducted at the end of standard X. Teachers from urban and rural area were needed guidance in new methods of teaching, new concept and evaluation technique. So the Government bring out useful quarterly Bulleting, Text books, Handbooks. Government help them in preparing the teaching aids,
conducted workshop, seminars and guide teachers in their subjects.

"The needs of in-service teacher education for teacher educators working in teacher education institutions of the country are more specific and different from those of teachers who are working in schools. Most of the states have introduced 10+2+ system. In school and some are on the process of introducing it. Truly speaking the existing teacher education institutions are not capable of undertaking a massive programme training student teachers to meet the demand occurred due to the introduction of the 10+2 curriculum in schools. Majority of the teachers working in secondary schools are not competent enough to do full justice with the revised curricula. Thus these teachers need refresher courses, short term courses to enable them to shoulder this responsibility effectively. Moreover the need of teacher educators working at primary and secondary level teacher education institutions are foremost towards the introduction of 10+2 curriculum.

Actual change in curricular designs in teaching practices and in attitudes towards disimprovement are directly depend upon the teachers. It will be the teachers responsibility to come to grips with specific
problems at the classroom level and work out operational ideas which seem to work in the best interests of the learners under their supervision.

The meaning of pedagogy has changed from giving instruction about the magic tricks of the teaching trade to the cultural process of bringing forth and developing child all the potentialities. Hence the 'teacher education' which means a 'continual education' for developing the whole personality of the teacher. Hence we now accept that the process of building up the personality of the teacher is continuous. This process is possible only if we have adequate in-service education programme.

Nextly change is a natural and constant phenomenon everywhere and education is not an exception to this. Thoughts and practice in education are developing fast. Our educational philosophies, techniques and expectations from the teachers are undergoing a change. To keep our teachers in touch with the latest and up to date knowledge of these aspects the in-service education is must.

"Teacher education can hardly afford to remain static in the midst of modern advance taking place in the field of science and technology. The old slogan of 'chalk and talk' is out of date in the context
of INSAT-B or Computer Assisted programme available now in our schools. The teacher shall have to be equipped for the challenges that he or she is to face due to introduction of such changes in the system of school education. Educational Technology (ET) is now knocking at the doors of our schools. Teachers working at different level in schools shall have to be exposed to ET and many more innovations taking place in the area of teacher education.

The role of perception of a teacher has undergone a change. He is not merely a communicator of knowledge but also to act as the director of learning and the architect of future society. His work today is not confined to classroom only. He has to take the leadership in the total social and cultural transformation of the society. Prof. Adval has remarked in this connection that the teacher's role in the emerging Indian society has to be enunciated clear term and his or her potentialities harnessed for the realization of education and social goals by charging them responsibility and a sense of commitment. Thus how best we can equip him for accountability and non-tutorial positions, is a big challenge before us
Objectives of In-service Teacher Education:

The incentives of teachers to continue their education and professional growth:

"In-service education and the training of teachers (Inset) in OECD countries is part of life long education. But directly related to improvement of teacher performance in the classroom. A framework for analysing the impact of teacher education is described, and findings from an action research project founded by the Department of Education and Science (United Kingdom) and based at the University of Bristol School Education are presented."

The new teacher a great deal of support in the first year of his work in the school. Proper counselling at this stage will help the teacher to acquire appropriate practical skills and the confidence to meet the classroom situations. In-service teachers training would be, to help teachers, upgrade their bringing qualifications & qualitative improvement in school. It is important to upgrade the professional competence of teachers. In-service education of teachers is considered as the most important programme in education today. Educational extension is more aligned to the changes and new developments is content area, techniques of teaching, school curricula, social needs, job expectations
and so forth which demand from teachers and other educators, acquisition of new knowledge and skills. Modification of attitudes and interests, and readjustment of their goals as well as their perceptions about education and society.

2) **Qualitative Improvement of Teachers**:

In-service education of the staff of secondary educational institutions is mainly for those who are training for the teaching profession. The teacher in secondary education must be a prominent professional capable of conveying the latest scientific and technological knowledge to his students. However, he must also be a good teacher who is able to explain the subject matter and stimulate his students. His moral and political profile is equally important. He must be a personality who inspires students by his example. Education extension will contribute to the qualitative improvement of education.

3) **To Meet out the Extended Demands of Society**:

There are many areas of human endeavour in which changes occur and these changes demand corresponding changes in education, and therefore in the educator. The frontiers of human knowledge is various field expand rapidly. Changes in the basic
concepts and theories in allied disciplines such as psychology and sociology necessitate corresponding changes in educational theory and practice. New pedagogical techniques and skills are also innovated. Social changes are also fairly rapid in the form of acceptance of new social values, development of new social needs and demands, and so forth. They have educational implication. In a developing country like India even the school population and school clientele keep continually changing. The concept and strategies of teacher development are changing rapidly. The role of the teachers has also changed during the last few decades. Today, he is the organizer of the learning experiences to be given to the pupils. Naturally the concept of only studying the students or the teachers' behaviour separately has been shifted to the study of the process of interaction among the teachers and the students as well. However before considering the recent developments in teacher education, Educational extension is capable of preparing in-service teachers and other educators in the best possible manner for bringing these required changes in education.

4) **Qualitative Improvement of Education**: In order to bring about changes in
education corresponding to the changes in other related areas, it is necessary to improve the competence of the teacher in terms of his knowledge, skills, interest, and attitudes as an essential means of improving education.

In the year 1960, educators, devoted their time and energy for the rapid spread of education, to the problem of qualitative improvement along with the quantitative aspect of education. In the year 1980, it is believed, shall lay emphasis on the quality aspect of the education process. In such a period of rapid shift in the aspect of education, in-service training needs to play a much more important and different role than it has in the past. It needs to take on double function, that of implementing changes generated elsewhere and of being an agent of change in particular school system. In-service training is needed not only for teachers who entered the profession some time ago. (In considering) the techniques for in-service training should fix one's eyes on the growing edge of the future, rather than taking dues from the current practices of teaching and ideas about teaching to shape the techniques and organizational patterns of in-service training not in
the image of teaching, as it is today, but as it might be tomorrow. The more radical changes in teaching strategies that are expected, the greater the necessity that in-service training consider the sequential steps involved in producing such changes and provide both the time and the help in producing them.

5) **To develop professional competence, confidence and relevant knowledge of teachers:**

It is said that pupils are the best judges of teachers. The teacher is the main factor in the process of education. His role is crucial particularly in the secondary education. The success of education is wholly dependent on him. The image of teacher in the opinion on students will throw light on many aspects of the problems.

The best qualified and most ambitious high school teachers can themselves play a vital role in guiding future curricular developments in school subjects.

New ideas, methods and movements have proliferated in recent years. Curriculum was changed.
Generally, explicit efforts to help teachers caused by socio-economics, scientific and technological development of their respective countries, have resulted in new ideas for the improvement of education systems. However, improvement to the system in in-service education for teacher was not attended merely. The teachers learns about the progress of knowledge in his speciality and its methods. In-service education is also oriented to ideological and political issues, in the context of educational practice. The length of this stage is not limited.

The constitution of India has cherished the aim of socialistic and democratic way of life for the countrymen. For the fulfilment of this aim progress in the political, social, economic and cultural aspects of life is necessary. For this purpose education plays a vital role. Education is the key to the progress for developing country. This has been accepted by the sociologists and economists. For this education and productivity should go hand in hand. Hence education needs the first priority in the planning process of the country.

Cultural and professional changes in a
traditional society do not easily take place with the help of instruments of change borrowed from advanced societies. If Indian education is to be changed through the instrumentality of extension services, very serious thought will have to be given for involving concept and theories of educational development which are routed in the cultural of the Indian people and can therefore, lead to a smooth transition of traditional education practice toward modernity. Social and educational changes are inextricable woven together and extension services which do not take these factors into account, have very little change to be successful.

Types of Extension Programmes:

Before in-service courses, teachers must understand their own educational skill. Teachers should transfer their attention from paper knowledge to working out educational experiments under school condition. The institute for in-service education of teacher, distributes theoretical and practical problems to stimulate teachers before they attend in-service courses. It organizes lectures, seminars and consultation, and implements changes in course programme etc. Staff co-ordinate test themes and
provide documentation. According to the capacity of the institute and with the approval of district officials, school principals plan the in-service training of their own teachers. Teachers training is controlled by the head consultant". Belickii I.T.

The school teachers are provided with organized pre-service (B.Ed.) education in their professional field. But as has been emphasized all throughout this book in this changing world, they soon become outdated. They face the same task of imparting knowledge which is rapidly advancing, and of developing various skill, attitudes, thinking and creativity. The secondary education commission observed a however excellent the programme of teacher training may be, it does not by it self produce an excellent teacher - Increased efficiency will come through experience critically analysed and through individual and group efforts at improvement. The teacher training institution should accept its responsibility for assisting in this in-service stage of teachers training".
Considering recommendation of the secondary education commission Govt. established the All India Council for secondary education in the year 1955. It was decided to start a well planned and well organised programme of in-service education of secondary school teachers through the establishment of extension services centres in selected training colleges in the country.

**APPROACHES IN EXTENSION**

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**Area of Work**:

The areas of extension service centre can briefly be categorised as under -
1) **Dissemination of**
   a) New knowledge in subject matter fields.
   b) Improved knowledge of teaching methods in all the areas.
   c) Publications of extension centre.

2) **Promotion of Professional Growth through** :-
   a) Seminars, workshops, discussions.
   b) Skill of individualising instruction and providing for individual differences.
   c) Encouraging innovations in classroom instruction.

3) **Promotion of School Improvement through** :-
   a) Utilisation of community resources.
   b) Utilising audio-visual aids in teaching.
   c) Formation of subject teacher association.
   d) Publication of Monthly Newsletter for exchange of ideas on school improvement.

**PROGRAME OF EXTENSION SERVICE CENTRES** :

Extension Programmes need a wide variety of activities to be organised by the Extension Service Department. Some of the techniques utilize the practices developed in the field of Agriculture; Industry; Workshop Practice; Group Dynamics etc. and the
important ones often used in educational extension area are Conferences, Seminars, Workshops, Study Groups, School Visits, Symposium, Panel Discussion, Publications, Correspondence, internship Programmes, Demonstrations, Refresher Courses, Orientation Courses, Subject Teachers Group, Principals Forum, Summer Institutes etc.

1. Workshops:
   These are meetings of individuals coming together with a definite purpose to build some programmes, workout some units in different subject area or to produce certain material that is designed to help the teacher in his professional growth. A working group engaged in the production of Instructional Material, a group of Principals, planning projects for school improvement, or a batch of paper-setters devoted to bring about examination reforms will be following the workshop techniques to produce some material that is envisaged to be tried out in the school situation.

2. Seminars:
   These are activities carried out with a view to clarification of ideas by discussions, talks and consultations in respect of a particular sphere of interest to the participants.
3. **Conferences**:

These are meetings of persons of the same profession engaged in clarification and solution of some insistent problems. It has a wide participation than a workshop or Seminar. The resolutions passed in the conferences have mostly reference to some external agency that is called upon to act.

4. **Refresher Courses**:

These are organised to refresh the knowledge of the participants in particular subject field. These extend the horizon of knowledge and are a good means of keeping teachers abreast of the progress made in the content field and pedagogical techniques of a teaching a subject.

5. **Orientation Courses**:

These activities are designed to provide general background to the unintimated in the fields that are new. They prepare the participants to a level from where they can subsequently work on their own in the field of activity. They open up a new dimension of the sphere work of the participants which is admitted to have potentialities of effective practice. In such areas Evaluation and Programmed Instruction such courses prepare teachers to a readiness to work with the techniques.
6. **Training Courses** :

These aim to provide a specialist knowledge or skill in particular areas.

7. **Winter/Summer Institutes** :

These Programmes are specialised training courses organised in vacations to facilitate teachers increasing their professional competence. Latest knowledge and skills are imparted herein to the participants. These may be called enrichment programmes. The rapid developments made in subjects like Mathematics, Physics, Biology, Chemistry and Psychology can be brought home to the teachers in summer institutes.

The following activities can be undertaken with advantage when communication of knowledge and clarification of ideas in respect of certain topic is desired:-

(a) **SYMPOSIUM** :

This enables the unfolding of different points of view on a particular subject. It is one of the best techniques of democratic thinking where in the various facts of a problem are presented and remedies may be discussed.

(b) **PANEL DISCUSSIONS** :

These presents clarification and counter
clarification till each aspect has been presented from diverse angles and consensus on the points of discussion has been arrived at. The persons participating in the Penal Discussion should have an open mind to receive and accept agreed conclusions and solutions.

(c) **BRAIN TRUST**:  
This represents a combination of experts who can answer a variety of questions on a particular topic. As against on information byronus which gives information mechanically, the Brain Trust can suggest workable solutions to a wide variety of problems in particular spheres.

(d) **PUBLICATIONS**:  
From the point of view of diffusion of knowledge in different subject areas the disseminative activities can serve the purpose of reaching a wider area of schools. The Publications can be the outcomes of the various programmes of extension described previously. Rather then being mere reports of Seminars etc. The Publications should contain material that can guide and help the teacher in his class work and the head of the
Institution in his duties. Publications on the following can be of great help to the school personnel in effecting a change towards improvement in school work:-

a) Instructional Material;
b) Teaching and Testing Units;
c) Teaching Programmes Based on Programmed Learning;
e) Tested Good practices.
f) Annual report.

8. EXTENSION THROUGH CORRESPONDENCE:

Following the technique of Correspondence course, the Extension Centre can establish contact with a large number of schools and involve them in a programme of improvement in different directions. For working with individual schools for total improvement the following techniques are invaluable:

1) SCHOOL VISITS:

School visits are the most promising and potent techniques for the extension worker in the process of desired change to be brought about in the professional
competence and attitudes of the teachers. Through his frequent and purposeful contacts, the co-ordinator can evaluate the school personnel to the level of readiness to perceive their problems and work for solutions.

2) **INTERNERSHIP PROGRAMMES**

The practice of 'Educational Pilgrimage' (Innovations of Anand Extension Services Centre) of rural teaching by pupil teachers and of Internship can be very useful in providing an orientation to the initiated teacher in learning from observation and from practical experience.

In the internship programme in experience teachers from a neighbouring school could be allowed to work in a good school for short periods, and conversely, good teachers from and established school could go to a new school and work there for some time.

3) **DEMONSTRATION SCHOOLS**

As the Agriculture Extension worker organises a demonstration farm for the farmers to see the result of latest methods in cultivation, it is necessary that in
educational extension we set up a few
demonstration schools which may provide
opportunity for others to observe and learn
from the practical implementation of
innovations in the schools system. The
Demonstration School can be a very
powerful and effective agency of extending
new knowledge to and through those who
will be using it in their school work.

Planned programme of extension
activities are essential for adequate
professional improvement of school
personnel. These activities should provide a
maximum opportunity to teachers (a) to
identify the instructional or other problems
on which they want to work; (b) to decide
upon ways and means for attacking these
problems and to have an opportunity to
share in the planning of the programmes;
(c) to have access to a variety of needed
resources and and (d) to move from
thought and study to action and
implementation with a minimum of
difficulty.