Policies and Practices at Secondary and Higher Secondary Level

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Kripa Drishti Publications, Pune.

POLICIES AND PRACTICES AT SECONDARY AND HIGHER SECONDARY LEVEL

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PREFACE

Research in every field and more so in the field of education is demand of the day. Progress in any field is directly linked with research in that field. Our problems and difficulties in the field of education further necessitate a purposeful and sustained research effort. We need a large number of research schools who may take up the huge task of providing new directions to our education theories and practices. Educational planning has to be based on sound research findings. The researches carried out at other places may also help us in any ways but we cannot always depend on the borrowed and imported stuff. We have to adopt an Indianised approach to the problems and requirements of Indian Education. Thus we have largely depend on researches carried out on our own soil by our own research scholars. The educational programmes of modern India can't be run on age old lines. So long as our research effort in education remains poor we shall continue to be counted as on educationally backward nation. Educational reform and progress necessitate a dedicated and competent team of research scholars. Department of education set up by various universities, various colleges of education and may other institutions and agencies are engaged in the task of preparing and training prospective research workers. They have already at their disposal huge stocks of variety of relevant reference and reading materials. In this view we prepared this work to help the readers and students of M.Ed. and Ph.d. Courses.

In this view we have taken a task to prepare the present book entitled Policies and Practices at Secondary and Higher Secondary Level, while we writing this book President, Secretary and Members of T.M.A.E. Society, Harapanahalli, family members and well wishers encouraged both by providing necessary guidance. Hence, we thankful to them.

we thank to publishers Kripa Drishti Publications, Pune. for their continue encouragement.

Suggestions for the further improvement of the book will be gratefully appreciated.

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Dedicated

to

Almighty God

Li|| Sh||Br||Shree. Chandra Mouleshwara Shivacharya Swamiji

Valuable Blessings

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Chapter 1

Basics in Teacher Education

1.1 Objectives:

- After reading this unit, you will be able to:
- Explain the meaning of teacher education.
- Discuss the nature of teacher education.
- Enumerate the objectives of teacher education.
- Describe the scope of teacher education.
- Explain the changing context of teacher education in the Indian scenario.
- Analyze the changing context of teacher education in the global scenario.

1.2 Introduction:

An educational institution performs a significant function of providing learning experiences to lead their students from the darkness of ignorance to the light of knowledge. The key personnel in the institutions who play an important role to bring about this transformation are teachers. As stated by NCTE (1998) in Quality Concerns in Secondary Teacher Education, ―The teacher is the most important element in any educational program. It is the teacher who is mainly responsible for implementation of the educational process at any stage.‖ this shows that it is imperative to invest in the preparation of teachers, so that the future of a nation is secure. The importance of competent teachers to the nation‘s school system can in no way be overemphasized. The National Curriculum Framework 2005 places demands and expectations on the teacher, which need to be addressed by both initial and continuing teacher education.

The term ‘education’ is a very common and a popular word that is uttered by many of us but understood by a very few in its right perspective. It is in one way or the other appears to be as old as the human race, though during the course of time, its meaning and objectives have inevitably undergone certain changes.

As a student of education course, and, as a future teacher, it is essential for you to understand the meaning of education, its conceptual features and different perspectives that have shaped its meaning from time to time. Understanding the concept of education and its dynamic features will help you to develop insights about the purpose of becoming a teacher and help you while educating your students.

This chapter analyzes different perspectives and views of Indian and western thinkers on education. The contemporary meaning of education is discussed here from analytical viewpoints. Education as a natural and a social process and also education as an intentional activity are discussed with suitable illustrations. The different processes of education and understanding the role and the need of institutions in educating the individuals are also examined by drawing relevance to school context.

An educational institution performs a significant function of providing learning experiences to lead their students from the darkness of ignorance to the light of knowledge. The key personnel in the institutions who play an important role to bring about this transformation are teachers. As stated by NCTE (1998) in Quality concerns in Secondary Teacher Education - The teacher is the most important element in any educational program. It is the teacher who is mainly responsible for implementation of the educational process at any stage. This shows that it is imperative to invest in the preparation of teachers, so that the future of a national is secure. The importance of competent teachers to the nation's school system can in no way be overemphasized. The National Curriculum Framework 2005 places demands and expectations on the teacher, which need to be addressed by both initial and continuing teacher education.

1.3 Meaning and Nature of Teacher Education:

1.3.1 Meaning of Teacher Education:

It is well known that the quality and extent of learner achievement are determined primarily by teacher competence, sensitivity and teacher motivation.

The National Council for Teacher Education has defined teacher education as – A programme of education, research and training of persons to teach from pre-primary to higher education level. Teacher education is a programme that is related to the development of teacher proficiency and competence that would enable and empower the teacher to meet the requirements of the profession and face the challenges therein.

According to Goods Dictionary of Education Teacher education means, ―all the formal and non-formal activities and experiences that help to qualify a person to assume responsibilities of a member of the educational profession or to discharge his responsibilities more effectively.‖ In 1906-1956, the program of teacher preparation was called teacher training. It prepared teachers as mechanics or technicians. It had narrower goals with its focus being only on skill training. The perspective of teacher education was therefore very narrow and its scope was limited. As W.H. Kilpatrick put it, ―Training is given to animals and circus performers, while education is to human beings.‖ Teacher education encompasses teaching skills, sound pedagogical theory and professional skills. Teacher Education = Teaching Skills + Pedagogical theory + Professional skills.

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

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

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

1.3.2 Nature of Teacher Education:

- Teacher education is a continuous process and its pre-service and in-service components are complimentary to each other. According to the International Encyclopaedia of Teaching and Teacher education (1987), ―Teacher education can be considered in three phases: Pre-service, Induction and In-service. The three phases are considered as parts of a continuous process.‖
- Teacher education is based on the theory that ―Teachers are made, not born‖ in contrary to the assumption, ―Teachers are born, not made.‖ since teaching is considered an art and a science, the teacher has to acquire not only knowledge, but also skills that are called ―tricks of the trade‖.
- Teacher education is broad and comprehensive. Besides pre-service and in-service programmes for teachers, it is meant to be involved in various community programmes and extension activities, viz adult education and non-formal education programmes, literacy and development activities of the society.
- It is ever-evolving and dynamic. In order to prepare teachers who are competent to face the challenges of the dynamic society, Teacher education has to keep abreast of recent developments and trends.
- The crux of the entire process of teacher education lies in its curriculum, design, structure, organization and transaction modes, as well as the extent of its appropriateness.
- As in other professional education programmes the teacher education curriculum has a knowledge base which is sensitive to the needs of field applications and comprises meaningful, conceptual blending of theoretical understanding available in several cognate disciplines. However the knowledge base in teacher education does not comprise only an admixture of concepts and principles from other disciplines, but a distinct _gestalt 'emerging from the _conceptual blending', making it sufficiently specified.
- Teacher education has become differentiated into stage-specific programmes. This suggests that the knowledge base is adequately specialized and diversified across stages, which should be utilized for developing effective processes of preparing entrant teachers for the functions which a teacher is expected to perform at each stage.
- It is a system that involves an interdependence of its Inputs, Processes and Outputs.

1.4 Need, Scope and Objectives of Teacher Education:

1.4.1 Need of Teacher Education:

The American Commission on Teacher Education rightly observes,

"The quality of a nation depends upon the quality of its citizens. The quality of its citizens depends not exclusively, but in critical measure upon the quality of their education, the quality of their education depends more than upon any single factor, upon the quality of their teacher."

In his **Call for Action for American Education in the 21st Century** in 1996, Clinton *indicated that:*

"Every community should have a talented and dedicated teacher in every classroom. We have enormous opportunity for ensuring teacher quality well into the 21st century if we recruit promising people into teaching and give them the highest quality preparation and training".

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

A. It is common knowledge that the academic and professional standards of teachers constitute a critical component of the essential learning conditions for achieving the educational goals of a nation. The focus of teacher preparation had to shift from training to education if it had to make a positive influence on the quality of curriculum transaction in classrooms and thereby pupil learning and the larger social transformation. The aspects that need greater emphasis are;

- The length of academic preparation,
- The level and quality of subject matter knowledge,
- The repertoire of pedagogical skills that teachers possess to meet the needs of diverse learning situations,
- The degree of commitment to the profession,
- Sensitivity to contemporary issues and problems and
- The level of motivation.

B. This is not possible if teacher preparation focused only on training. Holistic teacher building is necessary and therefore teacher education needed more emphasis than mere training.

C. Educating all children well depends not only on ensuring that teachers have the necessary knowledge and skills to carry out their work, but also that they take responsibility for seeing that all children reach high levels of learning and that they act accordingly.

D. People come to teacher education with beliefs, values, commitments, personalities and moral codes from their upbringing and schooling which affect who they are as teachers and what they are able to learn in teacher education and in teaching. Helping teacher candidates examine critically their beliefs and values as they relate to teaching, learning and subject matter and form a vision of good teaching to guide and inspire their learning and their work is a central task of teacher education (Fieman - Nemser, 2001).

E. The National Academy of Education Committee's Report (Darling-Hammond and Bransford, 2005) wrote that: On a daily basis, teachers confront complex decisions that rely

on many different kinds of knowledge and judgement and that can involve high stakes outcomes for students 'future. To make good decisions, teachers must be aware of the many ways in which student learning can unfold in the context of development, learning differences, language and cultural influences, and individual temperaments, interests and approaches to learning‖. In addition to foundational knowledge about the areas of learning and performance listed in the above quotation, teachers need to know how to take the steps necessary to gather additional information that will allow them to make more grounded judgements about what is going on and what strategies may be helpful. More importantly, teachers need to keep what is best for the student at the centre of their decision making.

F. Teacher education like any other educational intervention, can only work on those professional commitments or dispositions that are susceptible to modification. While we can't remake someone's personality, we can reshape attitudes towards the other and develop a professional rather than a personal role orientation towards teaching as a practice.

G. The Ministry of Education document -Challenge of Education: A Policy Perspective‖ (1985) has mentioned, Teacher performance is the most crucial input in the field of education.

Whatever policies may be laid down, in the ultimate analysis these have to be implemented by teachers as much through their personal example as through teaching learning processes.‖ India has reached the threshold of the development of new technologies which are likely to revolutionize the classroom teaching. Unless capable and committed are teachers in service, the education system cannot become a suitable and potential instrument of national development. The teacher is required to acquire adequate knowledge, skills, interests and attitudes towards the teaching profession. The teacher's work has become more complicated and technical in view of the new theories of psychology, philosophy, sociology, modern media and materials. The teacher can be made proficient with well planned, imaginative pre-service and in-service training programmes.

1.4.2 Scope of Teacher Education:

The scope of teacher education can be understood in the following ways;

a. Teacher education at different levels of education
b. Triangular basis of teacher education
c. Aspects of teacher education

a. Teacher Education at Different Levels of Education:

Teacher education reaches teachers at all levels of education, namely Pre-primary, Primary, Elementary, Secondary, Higher Secondary and the Tertiary. The needs and requirements of students and education vary at each level. Hence level and stage-specific teacher preparation is essential. Teacher education also helps in the development of teaching skills in teachers of professional institutions. The teachers in professional institutions have only the theoretical and practical knowledge of their respective subjects. They require specialized teacher training inputs to deal with students entering their professions.

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

b. Triangular Basis of Teacher Education:

Construction of the relevant knowledge base for each stage of education requires a high degree of academic and intellectual understanding of matter related to teacher education at each stage. 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. Teacher education derives its content from the disciplines of Philosophy, Sociology and Psychology. These disciplines provide the base for better understanding and application of Teacher education.

The **Philosophical** basis provides insights to the student teachers about the implications of-the various schools of philosophy, ancient and modern philosophical thoughts, educational thoughts of philosophical thinkers on education and its various aspects such as curriculum construction and discipline.

The **Sociological** basis helps the student teachers to understand the role of society and its dynamics in the educational system of a nation and the world at large. It encompasses the ideals that influence national and international scenes.

The **Psychological** basis helps the student teachers develop insights into students psychological make-up. This enables the student teachers to understand their self, their students and the learning situations such that they are able to provide meaningful and relevant learning experiences to their students.

c. Aspects of Teacher Education:

Teacher education is concerned with the aspects such as, who (Teacher Educator), whom (Student teacher), what (Content) and how (Teaching Strategy). Teacher education is dependent upon the quality of teacher educators. The quality of pedagogical inputs in teacher education programmes and their effective utilization for the purpose of preparing prospective teachers depend largely on the professional competence of teacher educators and the ways in which it is utilized for strengthening the teacher education programme.

Teacher education, thus, first deals with the preparation of effective teacher educators. Teacher education reaches out to the student teachers by providing the relevant knowledge, attitude and skills to function effectively in their teaching profession. It serves to equip the student teachers with the conceptual and theoretical framework within which they can understand the intricacies of the profession. It aims at creating the necessary attitude in student teachers towards the stakeholders of the profession, so that they approach the challenges posed by the environment in a very positive manner.

It empowers the student teachers with the skills (teaching and soft skills) that would enable them to carry on the functions in the most efficient and effective manner. Teacher education therefore pays attention to its content matter.

1.4.3 Objectives:

- **Vision of Teacher Education:**

Teacher education has to become more sensitive to the emerging demands from the school system. For this, it has to prepare teachers for a dual role of; Encouraging, supportive and humane facilitator in teaching learning situations who enables learners (students) to discover their talents, to realize their physical and intellectual potentialities to the fullest, to develop character and desirable social and human values to function as responsible citizens; and, An active member of the group of persons who make conscious effort to contribute towards the process of renewal of school curriculum to maintain its relevance to the changing societal needs and personal needs of learners, keeping in view the experiences gained in the past and the concerns and imperatives that have emerged in the light of changing national development goals and educational priorities.

These expectations suggest that teacher operates in a larger context and its dynamics as well as concerns impinge upon her functioning. That is to say, teacher has to be responsive and sensitive to the social contexts of education, the various disparities in the background of learners as well as in the macro national and global contexts, national concerns for achieving the goals of equity, parity, and social justice as also excellence. To be able to realize such expectations, TE has to comprise such features as would enable the student teachers to:

- Care for children, and who love to be with them;
- Understand children within social, cultural and political contexts;
- View learning as a search for meaning out of personal experience;
- Understand the way learning occurs, possible ways of creating conductive conditions for learning, differences among students in respect of the kind, pace and styles of learning.
- View knowledge generation as a continuously evolving process of reflective learning.
- Be receptive and constantly learning.
- View learning as a search for meaning out of personal experience, and knowledge generation as a continuously evolving process of reflective learning.
- View knowledge not as an external reality embedded in textbooks, but as constructed in the shared context of teaching-learning and personal experience.
- Own responsibility towards society, and work to build a better world.
- Appreciate the potential of productive work and hands-on experience as a pedagogic medium both inside and outside the classroom.
- Analyze the curricular framework, policy implications and texts.
- Have a sound knowledge base and basic proficiency in language.
- The objectives of teacher education would therefore be to,
- Provide opportunities to observe and engage with children, communicate with and relate to children

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

1.5 Changing Context of Teacher Education in the Indian Scenario:

The well-established tradition of teaching and learning in India has retained its inherent strength even under adverse circumstances. The post-independence period was characterized by major efforts being made to nurture and transform teacher education. The system of teacher preparation has come under considerable pressure as a result of the expansion and growth of school education, through efforts to universalize elementary education. Having inherited a foreign model of teacher preparation at the time of independence from Britain in 1946, major efforts have been made to adapt and up-date the teacher education curriculum to local needs, to make it more context based, responsive and dynamic with regard to best meeting the particular needs of India. The current system of teacher education is supported by a network of national, provincial and district level resource institutions working together to enhance the quality and effectiveness of teacher preparation programs at the pre-service level and also through in-service programs for serving teachers throughout the country.

1.5.1 Impact of National Policies:

India has made considerable progress in school education since independence with reference to overall literacy, infrastructure and universal access and enrolment in schools. Two major developments in the recent years form the background to the present reform in teacher education-

- The political recognition of Universalization of Elementary Education that led to the Right to Education Bill, 2008 and
- The National Curriculum Framework for school education, 2005.

The Bill has been passed by the Parliament and the Right to Education Act has come into being making it mandatory for the state to provide free and compulsory education to almost 20 crore children in the 6-14 age group till class 8. The Act mandates a schedule for the functioning of schools which includes a teacher-student ratio of 1:30 till a student population of 200 students at the primary stage. This would increase the demand for qualified elementary school teachers many times. The country has to address the need of supplying well qualified and professionally trained teachers in large numbers in the coming years.

The lunch of the massive Sarva Shiksha Abhiyan in 2002 and the recent financial commitment and education Cess to augment the Universal Elementary Education mission have underscored the need to adequately prepare teachers to address the growing demand for quality education.

1.5.2 Developments in School Education:

School education has seen significant development over the decades since independence. According to Government estimates (Selected Educational Statistics- 2004-2005 – Ministry of Human Resource Development, New Delhi) while 82% of the 20 crore children of the 5-14 age group were in school as per enrolment figures, it is equally true that 50% of these children are dropping out before completing class 8 (MHRD Annual Report 2007-08). The situation on the ground is still ridden with difficulties. Regional, social, economic and gender disparities are posing new challenges. This reality increases the challenge that the prospective teacher will face in implementing the Right to Education Act. The continued fragmentation of the school system poses the severest challenge to the national declaration of catering to the basic needs of all children in the 6-14 age group through the elementary education in an inclusive setting. However increasing privatization and differentiation of the schooling system have vitiated drastically the right to quality education for all children.

1.5.3 Changing Role of the Teacher:

The current system of schooling poses tremendous burden on children. Educationists are of the view that the burden arises from treating knowledge as a ‗given', an external reality existing outside the learner and embedded in textbooks. Knowledge is essentially a human construct, a continuously evolving process of reflective learning. The NCF 2005, requires a teacher to be a facilitator of children's learning in a manner that the child is helped to construct his/her knowledge. Education is not a mechanical activity of information transmission and teachers are not information dispensers. Teachers have to increasingly play the role of crucial mediating agents through whom curriculum is transacted.

1.5.4 Challenges in Teacher Education:

Unprecedented expansion of teacher education institutions and programmes during the past few years characterizes the teacher education scenario of today. With increasing school enrolments and the launch of pan-Indian primary education development programmes like Operation Blackboard, District Primary Education Programme, Sarva Shiksha Abhiyan and Universalization of Elementary Education, there was a natural increase in the demand for teachers. Added to this, the backlog of untrained teachers in the system and the essential requirement of pre-service teacher certification for appointment as a teacher led to mounting pressure on existing institutional capacity. The demand far exceeding supply, market forces have taken over unprecedented rise in the number of teacher education institutions in most parts of the country. From 3489 courses in 3199 institutions and an intake of 2, 74,072 in 2004, the numbers in December, 2008 swelled to 14,523 courses in 12,200 institutions with an intake of 10, 73,661 at different levels. This expansion has taken a heavy toll on quality parameters like infrastructure, faculty learning resources and student profile.

Teacher education as a whole needs urgent and comprehensive reform. There is a need to bring greater convergence between professional preparation and continuing professional development of teachers at all stages of schooling in terms of level, duration and structure. Considering the complexity and significance of teaching as a professional practice, it is imperative that the entire enterprise of teacher education should be raised to a university level and that the duration and rigour of programmes should be appropriately enhanced.

1.5.5 Research and Innovation:

There is a need to increase research that documents practices reflectively and analytically- whether it is of programs or of individual classrooms – so that it can be included in the body of knowledge available for study to student teachers. University departments and research institutions need to undertake such research. In addition there is a need to innovate with different models of teacher education. Institutional capacity and capability to innovate and create are a pre-requisite for the pursuit of excellence. Hence in the present scenario a lot of impetus has been given to research. Many teacher educators are encouraged to take up either major or minor research projects.

1.5.6 Inclusive Education:

There are two kinds of exclusion prevalent in schools; one is the exclusion of the child with disabilities and the second is the social exclusion of children who come from socially and economically deprived backgrounds. There is a dire need to equip teachers to overcome their biases in these regards and positively handle these challenges. The Persons with Disabilities (PWD) Act of 2005 provides for free and compulsory education up to the age of 18 years for all children with disabilities.

The education of socially and economically disadvantaged groups, especially the SCs, STs and minorities has remained a primary national concern of education for several years. The enrolment and retention of girls and therefore their participation has also remained behind those of boys. Teachers will have to be specially equipped if the social deprivation has to be overcome through education.

1.5.7 Perspectives for Equitable and Sustainable Development:

In order to develop future citizens who promote equitable and sustainable development for all sections of society and respect for all, it is necessary that they be educated through perspectives of gender equity, perspectives that develop values for peace, respect the rights of all, and that respect and value work. In the present ecological crisis promoted by extremely commercialized and competitive lifestyles, children need to be educated to change their consumption patterns and the way they look at natural resources.

There is also a increasing violence and polarization both within children and between them, that is being caused by increasing stress in society. Education has a crucial role to play in promoting values of peace based on equal respect of self and others. The NCF 2005 and subsequent development of syllabi and materials is attempting to do this as well.

1.5.8 Role of Community Knowledge in Education:

It is important for the development of concepts in children as well as the application of school knowledge in real life that the formal knowledge is linked with community knowledge. The NCF 2005 promotes the inclusion of locally relevant content in the curriculum as well as pedagogy.

1.5.9 ICT in Schools and E-learning:

With the onset and proliferation of Information and Communication Technology (ICT), there is a growing demand that it be included in school education. Teacher education has been structured to orient and sensitize the teacher to distinguish between developmentally appropriate and detrimental uses of ICT. It needs to also equip teachers with competence to use ICT for their own professional development. In view of the above discussion the newly visualized Teacher education program as put forth by NCERT is as follows;

1.5.10 Newly Visualized Teacher Education Program:

- Emphasizes learning as a self-learning participatory process taking place in social context of learner‘s as well as wider social context of the community to nation as a whole.
- Puts full faith in self-learning capacity of school children and student teacher and evolving proper educative programme for education.
- Views the learner as an active participative person in learning. His/her capabilities or potentials are seen not as fixed but capable of development through experiences.
- Views the teacher as a facilitator, supporting, encouraging learner‘s learning.
- Does not treat knowledge as fixed, static or confined in books but as something being constructed through various types of experiences. It is created through discussion, evaluate, explain, compare and contrasts i.e., through interaction.
- Emphasizes that appraisal in such an educative process will be continuous, will be self-appraisal, will be peer appraisal, will be done by teacher educators, and formal type too.

Hence there would be a major shift;

Table 1.1: Major Shift of Teacher Education

From	To
Teacher centric, stable designs	Learner centric, flexible process
Teacher direction and decision	Learner autonomy
Teacher guidance and monitoring	Facilitates, support and encourages
Passive reception in learning	Active participation in learning
Learning within the four walls of the classroom	Learning in the wider social context the class room
Knowledge as “given” and fixed	Knowledge as it evolves and created

From	To
Disciplinary focus	Multidisciplinary, educational focus
Linear exposure	Multiple and divergent exposure
Appraisal, short, few	Multifarious, continuous

1.6 Changing Context of Teacher Education in the Global Scenario:

Teacher education is a global profession that needs to be understood properly. It is essential to grasp a global perspective of the profession as it is today, to make assumptions about it in the near future and to utilize the best thinking and instructional models available in the present times.

Professionally, powerful teaching is very important and increasing in our contemporary society as a result of the steam of dynamic initiatives of human development and evolution. Due to these developments and evolution, standards of learning would be higher in the 21st century than it has been in the 20th century. As a result teachers would need to acquire additional knowledge and skills, both general and specific, to be able to survive and be successful in the 21st century school environment. Education has increasingly become important to success of both individuals and nations. Growing evidence demonstrates that, among all educational resources, teachers 'abilities are especially critical contributors to students 'learning and consequently the success of a nation to advance in its economic, social and political spheres (Darling-Hammond, 2006).

A. Dynamic teacher education and training in the 21st century globalized world:

For dynamic teacher education and training in the 21st century globalized world, teacher education and training institutions must design programmes that would help prospective teachers to know and understand deeply; a wide array of things about teaching and learning and in their social and cultural contexts. Furthermore, they must be able to enact these understandings in complex classroom situation serving increasingly diverse students. If the 21st century teacher is to succeed at this task, teacher education and training institutions must further design programmes that transform the kinds of settings in which both the novices and the experienced teachers teach and become competent teachers. This signifies that the enterprise of teacher education and training must venture out further and further and engage even more closely with schools in a mutual transformation agenda with all the struggles involved. Importantly, the teacher education and training institutions must take up the charge of educating policy makers and the general public about what it actually takes to teach effectively both in terms of knowledge and skills that are needed and in terms of the school contexts that must be created to allow teachers to develop and use what they know on behalf of their students (Fullan, 1993).

B. Structure of a globalized teacher education and training curricula:

Throughout the world, reform and innovation initiatives by nations have triggered much discussion about the structures of teacher education and training programmes (Hėbert, 2001) and certification categories into which programmes presumably fit.

Building stronger models of teacher preparation in the 21st century would require adequate and progressive knowledge content for teaching as well as knowledge content for the subjects that the teacher would be required to teach. In this respect, the -what‖ of teacher education and training should be the focus of the curriculum.

The ―what‖ of globalized teacher education and training curricula there are many ways to configure the knowledge content that teachers may need to render their services professionally (Darling-Hammond, 2006). In articulating the core concepts and skills that should be represented in a common-core curriculum for teacher education and training, there is need for a frame work to guide decisions and practice. In the United States, the National Academy of Education Committee on Teacher Education adopted a framework that is organized on three intersecting areas of knowledge found in many statements of standards for teaching which would be applicable for consideration in the 21st century teacher education and training curricula. The list below is represented in figure 1.1 diagrammatically

- Knowledge of learners and how they learn and develop within social contexts, including knowledge of language development.
- Understanding of curriculum content and goals, including the subject matter and skills to be taught in the light of disciplinary demands, student needs and the social purposes of education; and
- Understanding of and skills for teaching, including content knowledge of specific subject, content pedagogical knowledge for teaching diverse learners, as these are informed by an understanding of assessment and of how to construct and manage a productive classroom.

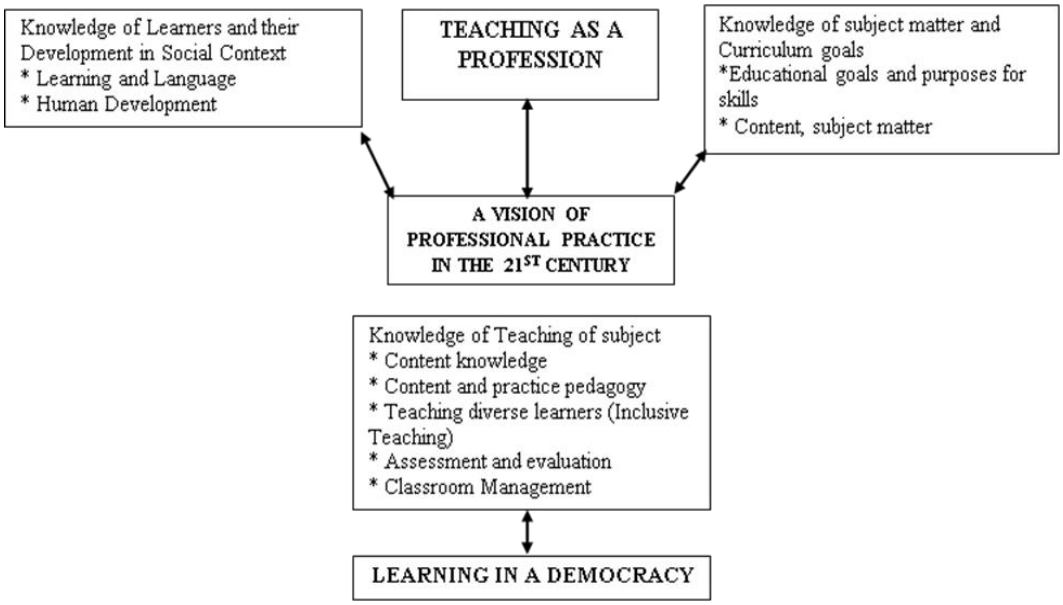

Figure 1.1: Learning in Democracy

1.6.1 Figure 1.1: Preparing Teachers for the 21st century:

The curricula should take cognizance of the ever-changing needs of society, the globalization scenario, the advancement and proliferation of technology and the way traditional classroom teaching is loosing grounds for distance-virtual learning (Allen and Thomas, 2000; Kantrowitz et al, 1987). The content of the curricula should take account of the 21st century classroom. Teachers should be trained on the state-of-the-art hard and software that will become common in the 21st century classroom. Training in technology should encompass telecommunications, satellite access, networking, the internet, video-conferencing and digital components as well as optical technology. These technologies will permit the 21st century teacher in the 21st century classroom feel comfortable and teach effectively and efficiently. Another scenario is the changing pattern of world employment. There are so many professions in our modern world and this will multiply in the 21st century. The new directions in teacher education and training should take cognizance of this so that teachers are prepared to play multiple roles and take their rightful positions in the teaching-learning environment to face these challenges confidently. We can only improve the quality of education worldwide for our students if we provide our teachers with the required skills, knowledge and experiences. One which deserves mention is the ability of the 21st century teacher to control disruptive behaviour of students in the classroom which makes it impossible for the teacher to work efficiently and effectively and even in some instances puts the security of both students and teachers at risk. Problems of such nature may multiply in magnitude in schools in the 21st century and for this reason, teacher education and training institutions should equip teachers with knowledge and skills in management to be able to address such problems effectively and efficiently. Teacher education curricula should be inclusive and emphasize on lifelong learning, development in technology and its applications and strategies for planning viable alternatives to benefit students. Emphasis should be on democratic principles and practices. The institutionalization of democracy will make teachers see the role of schools and their contribution to the development of democratic values, skills and behaviour from the global perspective.

1.6.2 The "How" of Globalized Teacher Education and Training Curricula:

The programme designs and pedagogies should attend specifically to the how of teacher education and training. It is important to have well-chosen courses that include core content knowledge for teaching and advanced research background. It is equally important to organize prospective teachers 'experiences so that they are able to integrate and use their acquired knowledge in a skilful manner in the classroom, especially incorporating research in whatever is taught so that the 21st century teacher becomes teacher-researcher at heart. Often times, this becomes the most difficult aspect of constructing a teacher education and training programme. The onus of the issue is that teacher education and training should attend to both the what and how so that knowledge for teaching, in reality, shapes the teachers 'practice and enables them to become adaptive experts who are versatile and capable of operating effectively and efficiently in a variety of teaching and learning environments using the tools that have been provided to them during their training. Lortie (1975) is of the view that accomplishing what has been indicated above requires addressing special challenges in learning to teach. Three interrelated issues are mentioned that learning to teach requires that the 21st century teachers

- Come to understand teaching in ways quite different from their own experiences as students. This, Lortie refers to as **the apprenticeship of observation** which refers to the learning that takes place by virtue of being a student in traditional classroom setting.
- Learn not only to **think like a teacher**‖ but also to -**act as a teacher**‖. This is termed by Kennedy (1999) as the **problem of enactment**. Professionally, teachers need to understand and be able to do a wide variety of things simultaneously.
- Be able to understand and respond to the dense and multifaceted nature of the classroom environment, juggling multiple academic and social goals requiring trade-offs from time to time and day to day (Jackson, 1974). In short, the 21st century teacher should learn to deal with the **problem of complexity** that is made more intense by the changing nature of teaching and learning in the teaching-learning environment.

A question that needs explicit answers in relation to the topic under discussion is **—How can programmes of teacher education and training prepare the 21st century teacher to confront the identified problems of learning to teach and others unanticipated?** Studies (Oberg, 2001; Hėbert, 2001; Glickman, 2001, Weiner, 2001; McCall, 2001) examining seven exemplary teacher education and training programmes find that despite outward differences, the programmes had seven things in common namely:

- A common clear vision of good teaching that permeates all course work and clinical experiences, creating a coherent set of learning experiences.
- Well-defined standards of professional practice and performance that are used to guide and evaluate course and clinical works.
- A strong core curriculum taught in the context of practice and grounded in knowledge of the child and adolescent development and learning, an understanding of social and cultural contexts, curriculum design, reform, and innovation, evaluation and assessment and subject matter content and pedagogy knowledge and skills.
- Extended clinical experience, at least 24 to 36 weeks of supervised practicum and student teaching opportunities in each programme are carefully chosen to support the ideas presented in simultaneous, closely monitored and interwoven course work.
- Extensive use of a variety of case methods, teacher research, performance assessment and portfolio evaluation that apply learning to real problems of practice.
- Explicit strategies to help students to confront their own deep-seated beliefs and assumptions about learning and students and to learn about the experiences of people different from themselves.
- Strong relationship, common knowledge and shared belief among school-based and university-based faculty jointly engaged in transforming teaching, schooling and teacher education and training. (Darling-Hammond in Press).

1.6.3 Models of Teacher Education and Training for the 21st Century:

The new directions will have to grapple with models of teacher education. The current models need reform and innovation and new models would have to be developed that would enable teachers to adapt comfortably to the changing times (Avalos, 1991; Monnathoko, 1995; Popkewitz, 1987, Ginsberg, 1988; Nagel, 1992; Al-Salmi, 1994; Shaeffer, 1990). The new models should emphasize learning to do and learning to think so that we do not produce learned monsters but learned thinkers.

A. There is absolute need for **participatory teacher education.** In this model, teachers in training should play active role in the training process. They should become participants in decisions regarding the needs to which their training must respond; what problems must be resolved in the day-to-day work environment and what specific knowledge and skills must be transmitted to them. In the participatory model teachers must be self-directed and self-taught. Every aspect of the training must be based on reflection and introspection. The needs, problems, statuses and roles must be clearly defined, examined and analysed by them. The actual concrete experiences of working with students should be emphasized. Teachers must be able to collectively examine and analyse their consequences, assisted by the trainers in solving problems (Akinpelu, 1998; Akyeampong, 2003).

In the new directions, there should be what I would like to term as -better teaching‖ model. Teachers should be able to:

- Author and publish experiences and researches conducted.
- Be central and key participants of curriculum reform and innovation.
- Encourage learners to work together in a cooperative spirit, help each other with their work as well as be able to evaluate themselves.
- Help learners publish their own work online portfolios.
- Write a bank of learning activities for learners to access at their own pace.
- Give learners a wider choice of learning activities according to their own interests and capabilities.
- Build up a personal portfolio of their best teaching plans so as to share among other teachers.
- Create exciting learning environment of active knowledge creation and sharing.

B. The new teacher education and training should not lose site of the **power of technology for both teachers and students learning.** The real power of technology will come when teachers have been trained well in them and have captured the potential of technology themselves. In this way, teachers would be able to contribute to model the behaviour that the students are expected to learn thereby making them to grow up not to be learned monsters but more human, creative and productive (Burke, 2000; Holmes Group, 1986).

C. Need for in-depth content and practical knowledge of research for teachers:

Research must be a major priority in teacher education and preparation in the 21st century. Professional teachers naturally seek answers to questions and solutions to problems that enable them to help their students to learn. They are decision makers, make thousands of choices on hourly basis regarding the choice of texts, literature, appropriate and relevant technology integration, curriculum pedagogy, assessment and measurement. They are highly reflective and sensitive to the needs of their students.

They encounter failures and successes. However, much of what teachers have to offer remains a secret. Their key to success is a mystery. Teachers seek multiple means of looking at their world of teaching and learning and that of their students by unlocking the secrets within the classrooms. Research is one of such potent keys to help unlock these secrets.

1.6.4 The Concept Research and Its Significance to Teacher Education and Training:

There is need to look at the concept research and how it applies to the teaching-learning environment, especially in the 21st century school environment. This will make the professional teacher to identify with the fact that research is a major part of the professional practice. For this reason, research in this discussion will be taken to mean: *"systematic study of a phenomenon with the aim of finding explanations or solutions or understanding and finding patterns among what is studied so that action could be taken to arrest or improve the situation"* (Boaduo, 2001:4). Problems of different kinds and magnitudes abound in the teaching-learning environment and these would quadruple in the 21st century school environment. Whenever such problems surface and pose threat to the survival of the students and their progress, a critical study would have to be conducted to find solutions to resolve the threat and improve the situation.

1.6.5 Need To Provide 21st Century Teachers with Solid Foundation in Research Methods:

If the 21st century teachers are to consider themselves as researchers and use research to improve their practice, then the following conditions would need to be fulfilled in their entirety by teacher education and training institutions (Boaduo and Babitseng, 2006).

- All categories of teachers – pre-school, primary, secondary and tertiary – should have as part of their training a concise detailed course in research methods that would conceptualise and concentrate on the work that teachers do in their day to day practice and not just as a course to fulfil a condition for a degree or diploma certificate.
- When equipped with the required content and practical knowledge and skills in research, teachers must be the first people to initiate research in the teaching-learning environment that has significant bearing on their professional practice because they have the knowledge, skills and experiences about the needs of their students and situations that confront them as well as the lives of the education institutions that they are located and operate daily.
- Decisions taken about research in their operative environment which affect their condition and progress of their practice as professionals in the educative sphere must be theirs to make and implement.
- Educational researches that are related to teaching – be it in the classroom or for the general improvement of the overall school environment (physical infrastructure, institutional materials or methods, strategies and approaches) can be effective with the agreement of teachers (UNESCO, 1979). This can only be successfully accomplished if they are given in-depth training by the institutions.

1.7 Globalizing the teaching profession through a globalised teacher's council:

Currently, every country has its own teaching council with specific objective to register professionally qualified teachers before they can practice. Every country has its own requirements that professional teachers should meet in order to be registered and certificated to teach. Even in the same country, like the USA, Australia and United Kingdom getting

registered as a teacher entails delaying. In the USA every state has its own teaching council that registers professionally qualified teachers and certificated with a license to practice. A critical look at this scenario reveals that teacher transfer from one state to another in the same country becomes a burden if not delays while teacher-shortages abound in these countries. In order to make teaching to become a mobile profession worldwide, there is need for 21st century globalised teaching council. The mandate of this council should be to collaborate with institutions and organizations responsible for teacher education and training to develop a common-core teacher education and training curricula as well as the establishment of teacher professional registration council which would be mandated to issue professional teaching licenses for practitioners that would be recognized worldwide to make teacher mobility from region to region and country to country easy and fulfilling.

- The need for teacher-tracer studies and further professional development by teacher training institutions after training.
- Need for greater involvement of parents and communities in the governance of the globalised schools.

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Chapter 2

Introduction to Secondary and Higher Secondary Education

2.1 Concept, Meaning, Need, Scope and Objectives:

2.1.1 Concept:

Secondary education covers two phases on the International Standard Classification of Education scale. Level 2 or **lower secondary education** (less common **junior secondary education**) is considered the second and final phase of basic education, and level 3 (**upper**) **secondary education** is the stage before tertiary education. Every country aims to provide basic education, but the systems and terminology remain unique to them. Secondary education typically takes place after six years of primary education and is followed by higher education, vocational education or employment. [1] In most countries secondary education is compulsory, at least until the age of 16. Children typically enter the lower secondary phase around age 11. Compulsory education sometimes extends to age 19.

Since 1989, education has been seen as a basic human right for a child; Article 28, of the Convention on the Rights of the Child states that primary education should be free and compulsory while different forms of secondary education, including general and vocational education, should be available and accessible to every child. The terminology has proved difficult, and there was no universal definition before ISCED divided the period between primary education and university into junior secondary education and upper secondary education.

In classical and medieval times, secondary education was provided by the church for the sons of nobility and to boys preparing for universities and the priesthood. As trade required navigational and scientific skills, the church reluctantly expanded the curriculum and widened the intake. With the Reformation the state wrestled the control of learning from the church, and with Comenius and John Locke education changed from being repetition of Latin text to building up knowledge in the child. Education was for the few. Up to the middle of the 19th century, secondary schools were organized to satisfy the needs of different social classes with the labouring classes getting 4 years, the merchant class 5 years, and the elite getting 7 years. The rights to a secondary education were codified after 1945, and some countries are moving to mandatory and free secondary education for all youth under 19.

2.1.2 Meaning:

Secondary education occupies a very strategic position in the educational pattern of the country. It is the link between primary education and higher education. Primary education is intended to provide minimum requirements for survival whereas secondary education enables an individual to become a full member of the complicated society.

After independence our country achieved a great remarkable change in the field of secondary education. The Government of India, Soon after attainment of independence appointed a number of committees and commissions to review the system of secondary education.

The various committees recommended certain suggestions for the improvement of secondary education both quantitatively and qualitatively. Tara hand Committee in 1948 suggested the multipurpose type of secondary schools without discouraging the unipurpose schools.

The university education commission 1948-49 which was appointed under the chairmanship of Dr. S. Radhakrishnan, remarked that "our secondary education remains the weakest link in our educational machinery and needs urgent reform." The landmark in the reconstruction of India's secondary education is the secondary education commission report 1952-53.

The commission was appointed by the Government of India, on September 23, 1952, under the chairmanship of Dr. A. Lakshmanswami Mudaliar to review the existing defects in the secondary education and made some suggestions regarding the improvement of secondary education.

2.1.3 Definition:

Secondary education is in most countries the phase in the education continuum responsible for the development of the young during their adolescence, the most rapid phase of their physical, mental and emotional growth. It is at this very education level, particularly in its first cycle, where values and attitudes formed at primary school are more firmly ingrained alongside the acquisition of knowledge and skills.

-From UNESCO, Secondary Education Reform: Towards a Convergence of Knowledge Acquisition and Skills Development, 2005

2.1.4 Scope:

The National Policy on Education (NPE), 1986, has provided for environment awareness, science and technology education, and introduction of traditional elements such as Yoga into the Indian secondary school system. Secondary education covers children 14–18 which covers 88.5 million children according to the Census, 2001. However, enrolment figures show that only 31 million of these children were attending schools in 2001–02, which means that two-third of the population remained out of school.

A significant feature of India's secondary school system is the emphasis on inclusion of the disadvantaged sections of the society. Professionals from established institutes are often called to support in vocational training. Another feature of India's secondary school system is its emphasis on profession based vocational training to help students attain skills for finding a vocation of his/her choosing. A significant new feature has been the extension of SSA to secondary education in the form of the Madhyamik Shiksha Abhiyan.

A special Integrated Education for Disabled Children (IEDC) programme was started in 1974 with a focus on primary education. But which was converted into Inclusive Education at Secondary Stage Another notable special programme, the Kendriya Vidyalaya project, was started for the employees of the central government of India, who are distributed throughout the country. The government started the Kendriya Vidyalaya project in 1965 to provide uniform education in institutions following the same syllabus at the same pace regardless of the location to which the employee's family has been transferred. A multilingual web portal on Primary Education is available with rich multimedia content for children and forums to discuss on the Educational issues. India Development Gateway is a nationwide initiative that seeks to facilitate rural empowerment through provision of responsive information, products and services in local languages.

After passing the Higher Secondary Examination (the grade 12 examination), students may enroll in general degree programs such as bachelor's degree in arts, commerce or science, or professional degree programs such as engineering, law or medicine. India's higher education system is the third largest in the world, after China and the United States. The main governing body at the tertiary level is the University Grants Commission (India), which enforces its standards, advises the government, and helps coordinate between the centre and the state. Accreditation for higher learning is overseen by 12 autonomous institutions established by the University Grants Commission. In India, education system is reformed. In future, India will be one of the largest education hubs.

As of 2009, India has 20 central universities, 215 state universities, 100 deemed universities, 5 institutions established and functioning under the State Act, and 33 institutes which are of national importance. Other institutions include 16000 colleges, including 1800 exclusive women's colleges, functioning under these universities and institutions. The emphasis in the tertiary level of education lies on science and technology. Indian educational institutions by 2004 consisted of a large number of technology institutes. Distance learning is also a feature of the Indian higher education system.

Some institutions of India, such as the Indian Institutes of Technology (IITs), have been globally acclaimed for their standard of undergraduate education in engineering. The IITs enroll about 10,000 students annually and the alumni have contributed to both the growth of the private sector and the public sectors of India. However the IIT's have not had significant impact on fundamental scientific research and innovation. Several other institutes of fundamental research such as the Indian Association for the Cultivation of Science(IACS), Indian Institute of Science IISC), Tata Institute of Fundamental Research (TIFR), Harish Chandra Research Institute (HRI), are acclaimed for their standard of research in basic sciences and mathematics. However, India has failed to produce world class universities both in the private sector or the public sector.

Besides top rated universities which provide highly competitive world class education to their pupils, India is also home to many universities which have been founded with the sole objective of making easy money. Regulatory authorities like UGC and AICTE have been trying very hard to extirpate the menace of private universities which are running courses without any affiliation or recognition. Indian Government has failed to check on these education shops, which are run by big businessmen & politicians. Many private colleges and universities do not fulfill the required criterion by the Government and central bodies

(UGC, AICTE, MCI, BCI etc.) and take students for a ride. For example, many institutions in India continue to run unaccredited courses as there is no legislation strong enough to ensure legal action against them. Quality assurance mechanism has failed to stop misrepresentations and malpractices in higher education. At the same time regulatory bodies have been accused of corruption, specifically in the case of deemed universities. In this context of lack of solid quality assurance mechanism, institutions need to step-up and set higher standards of self-regulation.

Government of India is aware of the plight of higher education sector and has been trying to bring reforms; however, 15 bills are still awaiting discussion and approval in the Parliament. One of the most talked about bill is Foreign Universities Bill, which is supposed to facilitate entry of foreign universities to establish campuses in India. The bill is still under discussion and even if it gets passed, its feasibility and effectiveness is questionable as it misses the context, diversity and segment of international foreign institutions interested in India. One of the approaches to make internationalization of Indian higher education effective is to develop a coherent and comprehensive policy which aims at infusing excellence, bringing institutional diversity and aids in capacity building.

Three Indian universities were listed in the Times Higher Education list of the world's top 200 universities — Indian Institutes of Technology, Indian Institutes of Management, and Jawaharlal Nehru University in 2005 and 2006. Six Indian Institutes of Technology and the Birla Institute of Technology and Science – Pilani were listed among the top 20 science and technology schools in Asia by Asia week. [60] The Indian School of Business situated in Hyderabad was ranked number 12 in global MBA rankings by the Financial Times of London in 2010while the All India Institute of Medical Sciences has been recognized as a global leader in medical research and treatment.

2.1.5 Objectives:

Secondary education should provide the learner with opportunities to:

a. The adoption of the goals of democracy and socialism necessitating among the people of a broad, national and secular outlook;
b. The extreme poverty of the country and urgency for promoting its economic growth; and
c. The absence of educational facilities needed for developing all aspects of the human personality and the neglect of cultural pursuits and activities.
d. The main objective is "national reconstruction by raising the standard of living of our people."
e. The education is to meet the needs of a modernizing democratic and socialistic society.
f. It would promote productivity.
g. It would strengthen social and national integration.
h. It would consolidate democracy to adopt as a way of life.
i. It would accelerate the pace of modernization.
j. It would enable students to participate in productive work in school, home, workshop, form and factory etc.
k. It would develop social, moral and spiritual values among the students.

l. Higher education should give both knowledge and wisdom.
m. Educational system must find its guiding principle in the aims of the social order.
n. It should inculcate democratic idealism among the learners.
o. It should give stress on love for higher values of life.
p. The central aims of higher education should be the training for leadership in the professions and public life.
q. It should create a feeling of nationalism and creation of world state.
r. To seek and cultivate new knowledge vigorously in the pursuit of truth and to interpret old knowledge in the light of new needs and discoveries.
s. To provide the right kind of leadership in all walks of life.
t. To identify gifted youth and help them to develop their potentiality to the full.
u. To provide society with competent men and women trained in agriculture, arts, medicine, science and technology.
v. To strive to promote equality and social justice and to reduce social and cultural differences.
w. To foster in teachers and students the attitudes and values needed for developing the 'good life' in individuals and society.
x. To develop higher education system through organization of different educational activities.

It is concluded that the Indian government has formulated educational policies regularly to ensure that the Indian education system is of high quality and internationally recognized. The two previous national educational policies have helped to develop India's educational system, and the action plan for the third national educational policy is one of the platforms that will be used. The policy's results will be evaluated using the outcomes of the current national education policy's action plan. If this policy focuses on the root causes of the issues and difficulties it faces, it will be effective.

2.2 A Brief Review of Historical Perspective of Development for Secondary Education: Ancient, Medieval and British Period:

2.2.1 Introduction:

The beginning of education in ancient India can be traced to the education through the Upanishads and Dharamasastra. The most important contribution of the. i ancient Indian system of educational is the concept of Gurukulas. Unfortunately, in spite of repeated attempts for the Indianisatioil of our education through institutions such as Vishwa Bharti University, Sri Aurobindo University, Jarnia Millia Islmnia, Vidya Bhawan and Banasthati vidyapith, to name only a few, the Gurukula system of education is definitely on the decline. Aspirants from all over the world came to join ancient Indian universities such as Takshashila and Nalanda Universities which were world famous for the standard of scholarship. While the British spread educational in India solely motives, credit must be given to them ibr introducing the great western system of education which has undoubtedly contributed to the present system of Indian education.

After Independence, the Indian Constitution made special provisions for the propagation of education at various stages through the achievement of universal and compulsory education

though it still remains an ideal not fully realized. Indian Government appointed scores of Commissions to assess the Indian System of education at various stages and at different times. The Government made all possible efforts to propagate education in India. The country has: undeniably made much progress in all dimensions of education but we could never achieve the great ideal of total literacy, let alone universal elementary education.

2.2.2 Ancient Indian Education:

In the Vedic India, the teacher enjoyed a special status and position. He was held in high esteem by the society and this was due not only to learning and scholarship, but also to qualities of head, heart and hand. The Guru or the teacher was an embodiment of good qualities, a fountain of knowledge and an abode of spirituality. The selection and preparation of a teacher was done with much rigour.

According to the Rigveda, a teacher was selected and then educated or trained effectively. The teacher must have passed through the recognized curriculum and have fulfilled all the duties of a Brahmachari before he was allowed to become a teacher. Teachers must sought knowledge for realization and were well-received and well respected. The scholarly class of teachers, which later became a caste (Brahmans) became stratified with the passage of time and lost its original grandeur. Later on teachers came from this caste of Brahmins and it became a hereditary profession. Manu remarked that the son of the teacher sometimes helped his father, by teaching in his father's place. The teacher was sometimes assisted in his work by some of the older and abler pupils who acted as monitors. This monitorial system, which was a method of inducting pupils to the position of teachers, was the contribution of the ancient education system.

Teaching in the Upanishadic period was known for the personal attention paid to the student. As the word Upanishad (sit close) connotes there was an intimate relationship between the teacher and the disciple. The freedom to accept a disciple rested with the teacher, but once he accepted a disciple it became his moral duty to see that the disciple grew. Similarly, a disciple or student had the freedom to choose his teacher. Knowledge was transmitted orally (since writing developed later) and explanation was one of the important method of teaching. The methods used by teachers were emulated and adopted by the disciples and handed over from one generation of teachers to another. The transmission of methods through initiation and repetition continued. Good teachers devised their own methods and made the matter interesting and meaningful to students by day-to-day examples. Listening to the spoken words, comprehension of meaning, reasoning leading to generalization, confirmation by a friend or a teacher and application were the five steps to realize the meaning of a religious truth practiced in ancient India.

a. Aim of Education:

The main objective of education was to equip the students with a good quality of education. The education mostly focused on the enrichment of culture, character, and personality, development, and cultivation of noble ideals. The objective was gaining the mental, physical, and intellectual personality of students, to make the students future-ready and survive in any situation.

b. Characteristics of Education:

During the ancient period, the state government and the people did not interfere in designing curriculum, payments of fees, regulation of teaching hours. There was a strong bonding between teacher and student. Every student was allotted with one teacher and more emphasis was given to the student-teacher relationship, each student used to meet teachers personally to learn and gain instructions from them. During ancient times, royal families, as well as kings of states, used to donate their wealth to improve the education system and quality. The syllabus was designed in accordance with the demands of that era. At that time students used to leave their houses and went to live with their gurus until their education was completed. During the early Vedic period, women's education was also given more emphasis. The education focuses on the physical and mental development of students. The course duration was about 10–12 years, as there were no books so students used to memorize all things, memory played a crucial role during learning. The education was imparted in forests away from cities and peoples to give students a pleasant and silent environment of study.

c. Curriculum:

Curriculum plays an essential role in the education system. It was dynamic and not static; it was made up of different stages. The fundamental goal of building a good curriculum was to develop students physically and mentally. The curriculum consists of four Vedas, six vedangas, Upnishads, darshanas, Puranas, Tarka Shastra. The six vedangas were Shiksha, Chhandas, Vyakarana, Nirukta, Jyotisha, and Kalpa while the darshanas were Nyaya, Baiseshika, Yoga, Vedanta, Sankhya, Mimasa. Algebra, Geometry, and grammar were also given more importance at that time. Panini was famous in the domain of grammar at that time. The curriculum of the Buddhist system consists of pitakas, Abhidharma, and sutras. Besides this medicine, Vedas were also given importance. Hindu learning was a part of Buddhist learning, although more emphasis was given to Buddhist learning. Both the systems were going hand in hand at that time. The education was totally through orals and debates, and the exams were conducted every year. The education system of the ancient period focused on subjects like warfare, military, politics, religion.

d. Methods of Learning:

The teachers at that time paid special focus to their students and teach them according to their knowledge and skill level. Teaching was basically via orals and debates, and the different methods were as follows:

- At that time books were not there, so students had the habit to learn and memorize all the things taught in the class, and teachers also helped them in memorizing.
- The students used to deep dive into the concepts taught by their teachers and explore new methods to learn it
- Listening, Contemplation, and concentrated contemplation were some new methods of exploring the way of learning.
- The teachers used the storytelling methods to teach the students.

- Students used to ask questions about the topics taught by the teachers and these topics were discussed and then answered to the students.
- The education of that time mainly focused on practical knowledge of the topics taught in the class.
- The students got plenty of knowledge through seminars and debates conducted at frequent intervals.

e. Educational Institutions:

Gurukul was the hometown of teachers where students come after completing their initiation ceremony and learn until the completion of their study. The parishads or academies were the places of higher learning and education where students learn through discussions and debates. Goshti or conferences were the places where the kings of the states used to invite scholars from every institute to meet and exchange their views. Ashramas or hermitages were the other learning centers where students from various parts of the country used to come and learn from saints and sages. Vidyapeeth was the place of spiritual learning founded by great Acharya, Sri Shankara in places like Sringeri, Kanchi, Dwarka, and Puri, etc. Agraharas was an institution of Brahmins in villages where they used to teach. Viharas were the educational institutions founded by Buddhists where the students were taught the subjects related to Buddhism and philosophy.

F. Higher Educational Institutions:

- **Takshashila or Taxila:**

Takshashila was the famous center of learning, including religion and teaching of Buddhism in ancient times. It was famous for his higher education learning comprising of subjects like ancient scriptures, law, medicine, sociology, astronomy, military science, and 18 silpas, etc.

The well-known scholars from the university were great grammarian Panini, he was an expert in his subject of grammar and published his work on Ashtadhyayi, Chanakya who is skilled in statecraft both studied here. Students from Kashi, Kosala, Magadha, and also from different countries flocked into the university despite a long and arduous journey. Takshashila was an ancient Indian city currently situated in north-western Pakistan was the well-known center of learning and has been declared as an archeological site and world heritage by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in 1980.

- **Nalanda:**

When Xuan Zang came to Nalanda it was called Nala, which was the center of learning in many subjects. The students used to come here from different parts of the country and the world to study here. Different subjects were taught, including the Vedas, fine arts, medicine, mathematics, and astronomy. Xuan Zang itself became the student of Yogashastra. Nalanda which is currently situated in Rajgir, Bihar, India was also declared as a world heritage site by UNESCO. The other famous institutes around ancient times were Vallabhi, Vikramshila, Ujjain, and Benaras.

g. Advantages:

- The system focuses on the all-round development of students.
- More emphasis was given to practical knowledge rather than theoretical knowledge.
- The students were not just involved in bringing the ranks, but their main focus was on knowledge.
- Classrooms were built-in forests which provide a pleasant study environment to the students.
- There was no pressure laid on students related to studies so that they can learn effectively.
- The government did not interfere with the formation of curriculum, kings at that time helped in the development of education.

h. Disadvantages:

- Women were not admitted to the Gurukuls.
- There was caste discrimination as only Kshatriya was allowed, Eklavya was not given admission to the Gurukul.

2.2.3 Medieval Period:

In the holy Koran, Education is urged as a duty and in Muslim countries, education was held in high esteem. Though it was not widespread amongst the people teachers and instructors were given great respect. The Mohammedan rulers in India founded schools (Maktabs), Colleges (Madrassahs) and libraries in their dominions. In the maktab, often attached to a mosque, the students received instruction in the Koran which they had to recite, and reading, writing and simple arithmetic was also taught. The medium of "instruction was Persian but the study of Arabic was compulsory. In madrassahs the course included grammar, rhetoric, logic, theology, metaphysics, literature, jurisprudence and sciences.

The teachers teaching in the maktabs were mostly moulvis, but in the madrassahs scholarly persons were employed. The method of teacher preparation was mostly initiation of what the old teachers practiced. Good and experienced teachers with a discerning eye identified able students and appointed them tutors to look after and teach the junior students in their absence.

Thus the monitorial system was in vogue during the medieval times too and was the method of preparing the future teachers. The teachers were held in high esteem and were respected by the society and their students.

Cramming and memorizing were prevalent during this period. The method of teaching was oral. The teachers adopted the lecture method. Students were encouraged to consult books. Practicals were also conducted in practical subjects like medicine. Analytical and inductive methods were also used to each subject like religion, logic, philosophy and politics. Although a specialized teacher training programme did not exist, the teachers had a clear idea of their role and functions and the methods to be pursued in teaching.

a. Medieval Education:

During the eighth century Anno Domini (A.D) a huge number of Mohammadian invaded India. Mahmud Ghaznavi captured India and set up a large number of schools and libraries in the country by the looted wealth. Later Muslim leaders established their permanent empire in India, they brought a new system of education. The ancient education system was drastically changed. The Arabs and the Turks bought some new cultures, traditions, and institutions in India, in that the most remarkable change was the Islamic pattern of education which was different from the Buddhist and Brahmanic education system. The medieval age, education system primarily focused on the Islamic and Mughal System.

b. Aim of Education:

The main objective of education during the medieval period was the spread of knowledge and the propagation of Islam. The objective behind this era of education was to spread Islamic education its principles, and social conventions. The purpose of the education system was to make people religious minded [4].

c. Characteristics of Education:

The rulers helped in the spread and development of education. They helped in the establishment of different educational institutes and funded it, big landlords also gave them some wealth in the development of institutes. There was no control of rulers over the educational institutes and also to their management. The student teacher relation was also good like the Buddhist and Brahmanic period, although students did not live with their teachers at that time. Teachers took interest in learning, at that time teachers were used to teaching students individually.

d. Curriculum:

During that time books were not there, therefore the students were used to write on taktis. The stress was laid on teaching the student from the beginning that is teaching them first alphabets and then words. Calligraphy and grammar were the most important subjects taught during those days. Students also learned “paharas” (multiple of numbers), and also they memorized it while learning. Arabic and Persian were the main languages of communication and these languages were important for the students who wanted to get higher posts. The recitation of the Quran was made compulsory, the students used to learn the Quran by heart as this was an important part of their curriculum. The students at their early ages were taught to recite the first 13 chapters of the Quran as a poem. Ibn Sina, an Islamic Persian scholar, and a teacher write that students during the age of 14 should be given the choice of selecting their favorite subjects for masters, for example, reading, manual skills, literature, medicine, geometry, trade, and commerce. There were two types of education during medieval times like secular and religious education. Religious education consists study of the Quran, Mohammad, and his invasions Islamic laws and Islamic history. The secular education consists of the study of Arabic literature, grammar, history, philosophy, mathematics, geography, politics, economics, Greek language, and agriculture.

e. Methods of Learning:

- Orals, discussions, and recitations of the lesson taught were the main methods of learning at that age.
- Emperor Akbar encouraged the students to focus more on reading and writing and to reform the scripts. He wanted the education system to be systematic and advised teachers to first teach students about the knowledge of alphabets, then words-knowledge, and then sentence formation.
- More emphasis was given on practical education.
- There was no half-yearly or annual examination fixed for students, but the students were evaluated based on practical situations of life.

f. Educational Institutions:

- **Maktabs:**

Maktabs were the center of the primary education for the children of general people. Along with religious education, students were also taught subjects like reading, writing, and arithmetic.

They were also taught some romantic literature of Persian example, Laila-Majnu, Yusuf-Julekha, etc. Along with practical education, letter writing applications, and accountancy were also taught in Maktabs.

- **Madrasas:**

After completing the primary education in Maktabs, the students were sent to the Madarsas for higher education. Madarsas were the centers of higher learning and Emperor Akbar did remarkable development in the education of the medieval era. Along with religious and practical education,

Akbar stopped the tradition of the Islamic religion and instructed to teach Hinduism and philosophy in many Madrasas. The subjects such as medicine, history, geography, economics, political science, astrology, philosophy, and mathematics were taught in Madarsas. Akbar made subjects like Vedanta, Jurisprudence, and Patanjali compulsory for Sanskrit students.

G. Important Educational Centers:

- **Delhi:**

Nasiruddin established Madarsa -i-Nasiria under the reign of the Shiraz Allauddin Khilji and established many Madarsas with renowned teachers in them. Mughal emperor Humayun established many big institutions of astronomy and geography in Delhi. He also introduced institutions where subjects like Arabic, Persian, Grammar, Philosophy, and Astronomy was taught.

- **Agra:**

Sikandar Lodi established many Madarsas and Maktabs in Agra and attracted many students from other countries to come and study. Akbar made Agra the center of culture, fine arts, and crafts.

- **Jaunpur:**

Sher Shah Suri completed his education in one of the educational institutes of Jaunpur city. The main subjects of teaching were political science, warfare, history, and philosophy, Ibrahim Sharki set up many Madarsas in Jaunpur.

- **Bidder:**

Mohammad Gawan had established many Madarsas and Maktabs in this city and it became the famous center of learning. The city consists of a library that contains 3000 books on subjects like Islamic theology, culture, philosophy, medical science, astronomy, history, and agriculture.

h. Advantages:

• Practical education was given more importance, students and teacher's relations were good. Students were taught from the basics and rulers also supported the development of education.

i. Disadvantages:

- Religious and Islamic education was given more importance.
- The student aimed to focus on leadership for ruling the country.

2.2.4 British Period:

Before the arrival of the Britisher in India the European Missionaries first started scholars and later initiated teacher training institutions. The Danish Missionaries established a normal school for the training of teachers at Serampur near Calcutta. In Madras Dr. Andrew Bell started the experiment of Monitorial System which formed the basis of teacher training programme for the time being. It was used in England and known as Bell-Lancaster system. Mr. Campbell, Collector of Bellary, in his Minute dated 17th August 1823, commended this system by which the more advanced scholars are asked to teach the less advanced and this was well received in England. Sir Munro, in his Minute dated 13 December 1823, gave same ideas for the improvement of the education of teachers. He suggested an increase in their allowance and different types of syllabi for Hindu and Muslim teachers. In June 1826, the first normal school was started under the management and with the finances of the British government in Madras. Initially, it' prepared teachers for the district schools. Later, this normal school developed into the Presidency College. In 1847, Bombay started a normal school in the Elphinstone Institution and in 1849, Calcutta too had a normal school.

- **Wood's Dispatch, 1854:**

The Wood's Dispatch, an important educational document was released on 19 July, 1854. It was rightly been called the most important document on English education in India. It gave some very valuable suggestions for the improvement of the education of teachers. It suggested that allowances be given to persons who possess and aptness for teaching and who are willing to devote themselves to the profession of school master.

In suggesting a change in the education of teachers, the Dispatch referred to the system prevalent in England. It urged the establishment of training schools in each presidency in India. The Dispatch suggested the introduction of pupil teacher system (as prevailed in England) in India and an award/ stipend to the pupil teachers and a small payment to the masters of the school to which they were attached.

On successful completion of the training programme they were to be given certificates and employment. So the Dispatch introduced sufficient incentive for the would-be teachers. Although apprehensive, Lord Dalhousie, Governor-General of India suggested implementation of Wood's Dispatch which brought into existence a number of normal schools.

- **Lord Stanley's Dispatch, 1859:**

In 1959, Lord Stanley, Secretary of State for India, in his Dispatch set forth an examination of the operation of the 1854 Dispatch. The Dispatch very emphatically stated that the administration should desist from procuring teachers from England and that teachers for vernacular schools should be made available locally.

- **The Indian Education Commission 1882:**

The Indian Education Commission 1882 (The Hunter Commission) recommended that an examination in the principles and practice of teaching be instituted, success in which should hereafter be a condition of permanent employment as a teacher in any Secondary School, Government or Aided. For graduates it suggested a shorter course of training than for others. Pedagogical courses became more prominent.

This also led to the opening of new teacher training institutions and by 1882 there were 116 training institutions for men and 15 for women. Thus by the close of the 19th century some essential things in teacher training had been established. Pedagogical courses had replaced general education, examinations and certificates in teacher training had been instituted and practical aspects in planning and teaching were emphasized.

- **Government of India Resolution on Education Policy, 1904:**

This is one of the most important educational documents which laid down the policies for the future educational system. It made some very vital suggestions for the improvement of the teacher-training Programme. These were:

i. Training Colleges:

The Resolution enunciated that if Secondary Education was to be improved then the teachers should be trained in the art of teaching. There were five teacher training colleges in all at places like Madras, Kurseong, Allahabad, Lahore and Jubbulpur. Intermediates or Graduates could seek admission to these Colleges. The general principles upon which the training institutions were to be developed, were, (i) To enlist more men of ability and experience in the work of higher training, (ii) To equip the training colleges well, (iii) To make the duration of the training programmes two years and for graduates, one year. The course would comprise knowledge of the principles which underlie the art of teaching and some degree of technical skill in the practice of the art, (iv) the course would culminate in a university degree or diploma, (v) There should be a close link between theory and practice and practicing schools should be attached to each college. These schools should be fully equipped with well trained teachers whose examples the students should emulate. They should have good Library and Museum. There should be a close link between the training colleges and the school, so that the students do not neglect the methods learnt in the college. The students should be occasionally brought together again and the inspecting staff and the training college authorities should try that the influence of the college is felt in the schools.

ii. Training Schools:

The Resolution recommended opening of more training schools, particularly in Bengal. The normal schools were mostly boarding schools where students with vernacular education came for training and were given stipends. They received general education combined with the instruction in the methods of teaching and practice in teaching. The Resolution recommended a minimum course of two years. It mentioned courses of training specially suited for teachers of rural schools.

Thus, it can be observed that the recommendations and suggestions of the Resolution were of far reaching importance. Some of the suggestions of the Resolution were not implemented and several recommendations were implemented, some changes took place in the field of teacher training. Universities instituted B.T. degree for-graduate teachers. Rethinking on the syllabus improvements in facilities etc. were the outcomes of the Resolution.

- **The Government of India Resolution on Education Policy, 1913:**

The second resolution on educational policy pinpointed the weakness of the system and suggested many useful measures with regard to improvement of Primary education. The Resolution suggested that teachers should be drawn from the class of the boys whom they will teach and they should have passed the middle vernacular examination and undergone a year's training.

It suggested periodical repetition and improvement courses for teachers. The resolution emphasized that no teacher should be allowed to teach without a certificate and that there should be a constant exchange of ideas amongst the training college staff members and that they should visit different colleges.

- **Calcutta University Commission, 1917:**

This Commission, known as the Sadler Commission, studied all aspects of the University education and presented its voluminous report in 1919. It also touched upon the teacher education programme and made some valuable recommendations. It pointed out the painful inadequacy of training institutions and the poor quality of training provided in them. It suggested that the training programme should not only make the trainee a competent class-room teacher but also a good administrator. The commission suggested opening of post graduate department of education in Universities, equips each department with a Professor, a Reader and a number of assistants and institute a post-graduate degree in Education. It recommended the introduction of Education as an optional subject at the Graduation and P.G. level. The recommendations of the Sadler Commission had salutary effect on the teacher training Programme in India. Mysore University started a faculty of Education in 1925.

- **The Hartog Committee, 1929:**

The work initiated by the Sadler Commission was further carried on by the Hartog Committee. The Committee was primarily concerned with primary education but it made far-reaching recommendations for teacher training as well. It rightly observed that the success of education depended on the quality of the training, the status and the pay of teachers. It suggested that teachers for rural areas should be inducted from persons who were close to rural society. It also added that the period of training was too short, the curriculum too narrow and the teaching staff inadequately qualified.

It suggested that journals for teacher in the vernacular, refresher courses, conferences and meetings of teacher associations can do much to brighten the lives of the teachers and improve their work. For the secondary school teachers too, the committee had the same suggestions. Working on the recommendations of the Sadler Commission 13 out of 18 universities set-up faculties of education. The Lady Irwin College was setup in New Delhi. Andhra University started a new degree the B.Ed. in 1932. Bombay launched a post-graduate degree the M.Ed. in 1936. Some other important changes in the field of education also took place in the thirties. The Central Advisory Board of Education was revived. Basic Education was started by Mahatma Gandhi in 1937, leading to the training of teachers for basic schools. In 1938, a Basic Training College was set-up at Allahabad and the Vidya Mandir Training School was started at Wardha in 1938.

- **The Abbott-Wood Report**

This report submitted in 1937 is again a landmark in the field of education. It primarily analyzed the position of vocational education but also made valuable suggestions about teacher education. According to the report the duration of training should be 3 years to enable the pupil to continue with general education along with professional training. It further suggested a refresher course for the teacher so that he could get a wider experience. Although there was improvement in the percentage of trained teachers from 56.8 % in 1937 to 61.3% in 1942. Yet there was much still to be done for achieving qualitative improvement.

In 1941, there were 612 normal schools out of which 376 were for men and 236 for women. These schools provided one or two years' training. There were 25 training colleges for graduates which were inadequate to meet the needs of the time. In -1941, the Vidya Bhawan teacher's College was started in Rajasthan and the Tilak College of Education in Poona. Bombay took the lead in starting a doctorate degree in education the same year.

- **The Sergeant Report, 1944:**

In 1944, the Central Advisory Board of Education (CABE) presented a scheme of education "Post-war Educational Development in India", popularly known as the "Sergeant Plan". The scheme was a broad-based educational plan. It made some practical suggestions for teacher's training programme. It recommended that suitable boys and girls should be inducted into the teaching profession after High School; Practical training should be provided, refresher courses be planned and research facilities be provided. It suggested a two-year course for pre-primary and junior Basic schools (after high school) and a three year course for the senior basic schools. The non-graduate teachers in high schools were to go for two year training and the graduates for one-year training. The first year of the two years training should be devoted to the study of the general and professional subjects. It should be supported by school visits, discussions and other experiences to kindle the trainee's interest in education. It proposed revised pay scales for all categories of teachers, to attract better teachers. In the middle of the medieval age, the British invaded India and started to capture it. The modern education was introduced during the British Empire. In the 1830s Lord Thomas Babington Macaulay introduced the English language. The subjects and the syllabus were limited to some extent, the main aim of modern education of the British was to spread Christianity. As time passed education started to develop and entered into the modern era that is in the twenty-first century, the era of science, technology, and innovations. And the demand and the need for education stills remain the same as it was in ancient and medieval times. In the modern era of science and technology, the industrial sector is increasing day by day. As demand increases our education sector also needs to change and adapt to that environment

a. Aim of Education:

The objective of modern education was to inculcate values in students such as equality, secularism, education for all, and environmental protection, etc. To understand the culture as well as people of our country, every student must be provided at least a minimum level of education and also to provide education to the people who cannot afford it, to prepare the students with the ever-increasing demands.

b. Characteristics of Education:

The student-teacher relations remained the same as it was in ancient and medieval, but students did not live in the teacher’s house. As technology is increasing day by day, the education sector is also following the trend of technology by teaching the students through online lectures and Massive Open Online Course (MOOC). In Aviation and the medical sector, more emphasis is on practical knowledge as compared to other sectors. Women’s education is giving more importance, and the Government has launched many programs to

encourage women's education. In the modern era electronics gadgets like projectors, Light Emitting Diode (LED), and computers are used to teach the students. The Government has established many programs and there are many organizations that promote education in India.

c. Curriculum:

The whole curriculum of a student is divided into three sections primary, secondary, and graduation. Primary education is from 1st to 10th standard, Secondary education is 11th and 12th, and in Graduation, students were given the choice to choose a field for further studies example computer, electrical, civil, etc. But after secondary education students also have choices to choose their career path. In primary education, students are taught subjects like history, geography, mathematics, science, Hindi, and Marathi. The languages may differ from state to state. At the early stages, students were taught alphabets, poem recitation, word formation, etc.

Different prayers, the National Anthem is also in the schools. Along with studies different sports and extracurricular activities are also conducted in schools to keep the students fit and for their all-round development. The pupils are assessed based on the term exams conducted at frequent intervals. In secondary education, students are given choices to choose from science and commerce. According to the student's choice, they were given an education. Secondary education is an advanced version of primary education. Pupils were assessed based on term examination. After secondary education, students were given entry to the universities through some entrance examination, according to their marks scored in entrance examination they are admitted to the universities. Pupils were assessed based on semester exams or in-sem exams. In modern education along with studies, the emphasis is given on extracurricular activities and sports for all-round development of students.

d. Methods of Learning:

Students mostly learn concepts through online platforms like YouTube, Coursera, and Udemy. Students refer to the notes given by the teacher's side by side while learning online. During class hours doubts are solved through discussions, debates, etc. Pupils were assessed based on mid-sem written exams and practical exams to check their practical knowledge.

e. Educational Institutions:

Schools: Schools are the educational institutes where children are sent for their primary education. There are many private and government schools situated in India, primary education means education from Nursery to 10^{th} standard. Children at their early ages are sent to schools to learn poems, grammar, prayers, alphabets, etc. besides this, the other subjects taught in the schools are English, mathematics, science, history, geography, and other regional languages. Schools are situated inside the city, also there are many cultural programs and sports events conducted in schools for the students to develop their interpersonal and physical skills. Private schools are run by organizations and the principal manages the academics and cultural activities in schools.

Colleges: After completing primary education from schools, students are sent to colleges for secondary education. After primary education, students are required to give entrance exams to take entry into colleges and according to the marks scored in entrance exams students are allotted colleges. In some states, during college, they are advised to choose a stream from science and commerce and then further carry on their secondary education. College education consists of 11th and 12th standard. Different subjects taught in secondary education according to their streams are physics, chemistry, geometry, algebra, accounts, and many other regional languages.

University: After the secondary education, students are required to give the entrance exams like Joint Engineering Entrance (JEE) and other state-level exams to take admissions in universities. Students are given choices to choose a stream like a computer, electronics, civil, and Mechanical and then start their career in it. The University provides undergraduate and postgraduate course comprising of course duration of 4 and 3 years, different universities in India are Savitribai Phule Pune University, Mumbai University, and many other aided non-aided and private universities. There are many cultural and sports events conducted in universities for giving students some time to joy and relax from studies.

F. Higher Educational Institutions:

Indian Institute of Technology: It is one of the greatest universities in India for higher education like undergraduate, post-graduation, and many more streams. There is a total of 23 IIT colleges in India, every year lakhs of students compete to take admissions in these IIT's. JEE-Mains and JEE-Advance are the two entrance examinations to take admission in these IIT's, according to the All India Rank (AIR) and marks students are allotted IIT's. Due to its high level of educational teaching and curriculum, IIT is famous all around the world.

The other top universities are Birla Institute of Technology and Science (BITS), National Institute of Technology (NIT), Indian Institute of Science (IISC).

g. Advantages:

- Use of technology in learning, students is learning free-lancing and many other new technologies.
- Many programs and missions have started to increase the employment of India.
- Top class universities and colleges with good infrastructure and environment.

h. Disadvantages:

- Interference of government in education, management, and syllabus.
- Lack of quality teaching as well as the environment in government schools and colleges.
- Increase in fees of schools and colleges of private institutes.
- Lack of practical knowledge orientation.
- Due to the increase in fees, the family, which is below the poverty line cannot afford education and hence there is an increase in the number of laborers in India.
- Lack of connectivity of the students who lived in rural areas.

In the modern era, industries and technology are increasing day by day. Every industry sector is looking for a person who best suits their industry. With the ever-increasing demand for industrial sectors, our current education system also needs to be upgraded. In universities, students are learning just for competing with each other to come first, no practical knowledge is gained. There is a lot of pressure and burden of work and studies on them, due to this student are committing suicide. Our education system needs to learn from ancient and medieval education system regarding the implementation of practical knowledge, student-teacher relations, ways of life student lived in that age, the contribution of kings towards the education, there was no stress laid on students and much more. The future of industries and commercial sectors will be very tough and ever demanding, so our government has to provide such an education system which will bring all-round development in students and make them future-ready and also teach them to live in any critical situation.

2.3 Historical Background of Secondary and Higher Secondary Education in India with Special Reference to the Recommendations Made by Various Committees and Commissions:

2.3.1 Kothari Commission (1964-66):

The Kothari C.3mmission was appointed under the provisions of a resolution of the Government of India setting up the Education Commission, dated July 14, 1964 under the chairmanship of Dr. D.S. Kothari, Chairman, University Grants Commission, New Delhi. The Committee studied the problems of education in India and submitted its 1600 page report to the Education Minister of India on June 29, 1966. It is a comprehensive report and expected to have so far wide political repercussions.

- **Education and national objectives:**

Education should be related to the life and needs of the person so that national objectives may be achieved. Following are the five objectives which should be achieved through a five point programme.

i. Increase 'in production,
ii. Social and national integration.
iii. Consolidation of democracy.
iv. Speeding the process of modernization.
v. Building the character through the development of social and spiritual values.

- **Educational Structure and Standard:**

General education should last for a period of 10 years: four years of lower primary, three years of higher primary and three years of lower secondary education. Prior to general education, primary education from one to three years should also be given. The theme of higher secondary education should be fixed for two years. After it the degree course should be of three years. The Graduate course should be extended from two to three years.

- **Teacher Status:**

It is necessary to improve the economic, social and professional status of the teachers. The scale of pay of teachers of Government and nongovernment schools should be the same. A suitable increase should be allowed in the scales of the pay of teacher.

- **Teacher's Education:**

Isolation of teacher's education should be removed and extension service department should be established in each training institution. Comprehensive colleges should be established wherein provision should be made for giving training at different stages of education. Extension service department should be established in each training institution. Comprehensive colleges should be established wherein provision should be made for giving training at different stages of education.

- **Equalization of Educational Opportunities:**

In India, two types of inequalities are found in the field of education.

a. In the education of boys and that of girls.
b. In the education of developed classes and of backward classes.

In order to remove these inequalities, lower secondary education should be made free up to the end of the Fifth Five Year Plan. Higher Secondary and University education should be given free to the poor and meritorious students. There is a need to reduce the cost of education. A sufficient number of textbooks should be kept in the libraries of educational institutions.

Meritorious students should be granted financial help to enable them to purchase textbooks. Fifteen percent of the total numbers of students should be granted scholarships at the secondary education stage.

By the year 1976, 15 percent of the students of pre-graduated course should be granted scholarship. By the year 1986 this percentage should be increased to 25. A system of University scholarships should be started and 500 scholarships should be given to students, who are selected to receive education in foreign countries.

- **Expansion of School Education:**

School education needs to be greatly expanded. Centres should be opened in each district and state. Managers of the private schools should be encouraged to expand primary education. Proper provision should be made for primary education of all boys and girls up to the age of five by the year 1975-76 and those up to the age of seven, by 1985-86. Twenty per cent of the students at lower secondary stage and 5 percent of student at higher secondary stage should be given professional education. The number of students should be regulated at this stage.

- **School Curriculum:**

The Commission recommended different combinations for different classes from lower primary to higher secondary.

a. Amendment of the Three Languages Formula:

The three-language formula should be amended on the basis of the following principles:

- Hindi as national language of the Union should occupy ail important place after the mother tongue.
- The knowledge of English should be ensured and it should be a language for the students.
- The most suitable stage for learning the three languages is he lower secondary stage.
- The teaching of Hindi or English should be started in the period when utmost inspiration and need is experienced for it.
- The teaching of three languages should be made compulsory in any state.

On the basis of the above-mentioned principles, the Commission amended the three languages formula in the following manner to include:

- Mother tongue of regional language.
- Be National or the Union language or associate national language as long as it exists.
- One modem Indian or European language, which should be selected from the curriculum of the students and which should not be the medium of education.

b. Place of Hindi:

English will continue to be used as the language of intellectual exchange in higher education. However, English cannot be the medium of exchange of views for the majority of the Indian people.

The course of time, this language will certainly be Hindi. Hence, efforts should be made to spread the study of Hindi to all parts of the country.

c. Place of Different Indian Languages:

The study of Indian languages is difficult. On account of differences in their scripts. Some lectures on modern languages should be published in Devanagri or Roman script. The formulation of a new policy on the study of languages in schools has become necessary. English will continue to be the associate language for an indefinite period.

Besides this, proper policy is necessary for national integration. Therefore, the mother tongue should be made the medium of education at the school, colleges and higher education levels. In addition to Hindi, all modern Indian languages should also be developed so that they may become the medium of exchange between the States.

d. Place of English:

English should be used as the medium of instruction in all Indian educational institutions or universities. The study of English should be started from the school stage. Six universities should be developed wherein English would be the medium of education. These six universities should be selected from amongst the existing universities, one of which should be a University of Industrial science and one should be a University of Agriculture.

e. Place of Classical Languages:

Sanskrit language occupies a special importance and position in the national education system. However, the Commission does not agree with the view that Sanskrit or any other classical language should be included in the three-language formula. A mixed curriculum of mother tongue and Sanskrit should be formed. However, as public opinion is not in its favour, the Indian classical languages can find their place only as optional subjects in the curriculum. Such optional subjects should be started in classes higher than VIII class.

f. School Administration and Supervision:

Provision should be made for common school system of public education. Administration should be kept separate from the supervision and teaching. Up to the district stage, it should be in the hands of the District School Board. The work of supervision should be conducted, by the education departments in the secondary schools. A state 'Board of Schools9 should be established in each state in order to perform the work of the prevalent secondary education board. A National Board of Education should be established in the Ministry of Education in order to advise the Government with regard to school education.

g. Higher Education:

The University Grants Commission should develop six universities from among the existing universities into major universities where the best type of graduation, teaching and research work should be performed. Clusters of advance courses should be started in each university. The teachers imparting education in universities and schools should be sent to major universities to acquire knowledge relating to their subjects. The teacher as well as students should not be allowed to leave one institution and to join other institutions during a session of study. In order to admit the students in the University, the system of selective admission should be adopted. The regional language should be the medium of pre-graduate courses. English should be the medium of postgraduate courses. The examiners should be given remuneration for examining the answer-books. Wherever there are degree colleges, they should be organized into universities.

2.3.2 Ishwari Bhai Patel Committee:

The recommendations of the Education Commission (1964-66) were considered by the Government of India and a resolution oil. The National Policy on Education was adopted after consulting both Houses of Parliament (1968).

Among other things the resolution "laid great emphasis on the fulfillment of the Directive Principle contained in Article 45 of the Constitution regarding the provision of universal and free education for all children in the age-group 6-14. At the secondary stage, it highlighted the urgency to adopt the new pattern of 10+2+3 for school and college classes with an intensive effort to diversify and vocationalise the +2 stage.

The Ministry of Education and Social Welfare appointed an expert Group in 1973 to develop curriculum for the 10+2 pattern. The Group drafted an Approach Paper in 1975, which was circulated for opinion of the State Governments and of teachers, planners and educational administrators.

A publication entitled "The Curriculum for the Ten-Year School-A Framework" was published by the National Council of Educational Research and "Training (NCERT) in 1975.

In 1975 NCERT prepared syllabuses, textbooks and other material in consultation with experienced teachers, subject-specialists and representatives of State Institutes of Education and of Science Education, within the framework of the NCERT publication. This work was carried out in a phased manner: for the 1975-76 school session, materials for Classes IX and X were prepared in a few subjects; for I 976- 77 materials for Classes I, III and VI were prepared.

The Central Board of Secondary Education adopted some of the textbooks prepared by NCERT for Classes IX and X for the first set of candidates appearing for the secondary public examination held by that Board, at the end of Standard X, in April, 1977.

a. Objectives and Structure of School Education:

- **General:**

Having considered the NCERT Framework and keeping in mind the Constitutional Directive contained in Article 45 which enjoins that "the State shall provide free and compulsory education for all children until they complete the age of 14 years", we feel that the objectives at the compulsory stage of school education must necessarily be distinct from the objectives of education beyond this stage.

We also consider that the objectives of education, when viewed comprehensively, should enable an individual to acquire, knowledge, skills, habits, attitudes and values necessary for

i. A successful performance of his responsibilities as a citizen; and
ii. A rewarding personal life by development of

a. Innate talents,
b. Powers of creative enterprise, and
c. The capacity to appreciate the splendor of life revealed from communion with nature and man with man.

- **Learning:**

Formal, non-formal every child. from birth, is influenced by the culture of the family and the community and, though he acquires useful skills and attitudes, nevertheless he continues to be influenced by his immediate environment which if properly utilized can become an instrument of education modifying traditional patterns of living and removing their inhibitive aspects. We, therefore, feel that education must be organized as a learning system to take the individual and society progressively towards higher reaches of human thought and behaviour.

We are of the view that the learning system should be organized through formal or non-formal arrangements-some institutional, some partly personal-and that the institutional arrangements should not be so rigid as to exclude those learners who wish to make use of them partially. It is our opinion that, linked with such flexible arrangements within the learning system, the content of learning must also be flexible and arranged so as to suit the needs of individual learners or groups of learners. The curriculum too must be capable of catering to the requirements of a wide range of learners and learning circumstances. The curriculum, we feel, has to be built round local situations, though there must be a core of basic content for comparability of educational attainment and the acquisition of further skills and knowledge. This core should be minimal. We know that primary and secondary education which, at present, is mainly given through institutions is generally linked with age-groups. Anyone who has missed any stage of primary or secondary education, and who desires to re-enter at any age and at any point, in our opinion, should find it possible to do so either in an institution or through some non-formal arrangement.

- **Attitudes and Values:**

It is our belief that the educational system must inculcate attitudes and create values so that every individual should promote the concepts of socialism, secularism and democracy and not only revere but actively strive for the realization of the principles of justice, liberty, equality and fraternity, enshrined in the Preamble of our Constitution.

The present educational system, we are aware, is urban-oriented, bookish in outlook and almost entirely divorced from manual activity. In terms of opportunity this has proved discriminatory against the poor and weaker sections of society. We, therefore, feel that the principles of Basic Education as evolved by Mahatma Gandhi and accepted in the Kothari Commission Report with the stress on work education need to find a central place in the educational system.

Summarizing our views, we consider that education during these 10 years should be capable of:

a. Promoting an understanding and appreciation of our cultural heritage while simultaneously stimulating desirable changes in our traditional culture-pattern;
b. Maudling the learner after the image of the citizen as visualized in the Constitution;
c. Releasing learning from its bookishness and elitist character so as to relate it closely to socially productive manual work and the socio-economic situation of the Country ;

d. Encouraging rationalism and the scientific attitude;
e. Emphasizing the qualities of simplicity, integrity, tolerance and cooperation in all aspects of life;
f. Being available to every individual irrespective of caste, creed, sex, age, place of birth, or economic circumstances and in such a way that working and learning can always be combined.

- **Specific Objectives of Primary and Secondary Education:**

In specific terms we, therefore, feel that the objectives of the structure and curriculum content for primary and secondary education should be reformulated as below. It should be remembered that the objectives of primary education have to be distinct from those of the other stages of education in view of the Constitutional obligation to make it universal.

A. Objectives of Primary Education (I• VII/VIII):

- Acquisition of tools of formal learning, namely, literacy, numeracy and manual skills;
- Acquisition of knowledge through observation, study and experimentation in the areas of social and natural sciences;
- Development of physical strength and team spirit through sports and games;
- Acquisition of skills for planning and executing socially useful productive work with a view to making education work-based;
- Acquisition of skills of purposeful observation;
- Acquisition of habits of cooperative behavior within the family, school and community; development of aesthetic perception and creativity through participation in artistic activities and observation of nature;
- Development of social responsibility by inculcating habits (individually as well as collectively) of appreciation of the culture and life styles of persons of other religions, regions and countries; and readiness to serve the weaker and the deprived.
- Development of the desire to participate in productive and other processes of community life and to serve the community.

B. Objectives of Secondary Education (VIII/IX-X):

- Acquisition of the skills and habits of self-learning;
- Acquisition of a broad-based general education consisting of science,~ mathematic~, social sciences, languages and socially useful productive labour;
- Acquisition of habits of helpful living and participation in games, sports, and athletics for the maintenance of physical fitness;
- Developing aesthetic appreciation and creativity through participation in artistic activities;
- Exploring the world of work and understanding the realities of life in order to prepare for a confident entry into the world outside the school;
- Participation in and promotion of social activities in the school and the community in such a way as to imbibe democratic values and to work towards the achievement of equality through service to the weak and the deprived.

Keeping in view the objectives of primary and secondary education enumerated above and also keeping in view the Constitutional obligation under Article 45 and realizing that the stage of school education which is sometimes termed 'middle', end mg at VII/VIII, is a terminal stage of formal education for the great majority of the children in our Country, we recommend that a general broad-based education be provided up to the end of the stage of compulsory education, so that children leaving school should have acquired a knowledge of our hentage and culture and are enabled to exercise their rights as citizens in a responsible manner. Taking into consideration differences in aptitude and ability of children, we feel that while in Classes VIII/IX and X there should be general broad-based education, provision must be made for developing any special interests or talents in at least one area, outside the broad framework of general education!. Realizing that a broad-based general education can make heavy demands on the capacity and energy of children at the secondary stage, we strongly recommend that the content of courses of individual subjects of learning must be designed, so as to keep the quantum of knowledge to the minimum essential for the understanding of the subject.

- **Structure, Curriculum Pattern and Time Allocation:**

We give below the structure, curriculum pattern and time allocation for the different sub-stages of school education which is illustrative and which we believe may apply in general throughout the Country.

Structure, Curriculum pattern and time allocation	
Classes I-IV/V	**Time Allocation**
1. One Language	20%
2. Mathematics	20%
3. Environment Studies (Social Studies, Nature Study and Health Education)	20%
4. Socially Useful Productive Work	20%
5. Games and Creative Activities, such as Music, Dancing and Painting	20%

Classes V/VI-VII/VIII	**Time Allocation (per week)**
1. Language*	7 hours
2. Mathematics	4 hours
3. History, Civics and Geography	4 hour
4. Science-An Integrated course	4 hour
5. The Arts (Music, Dancing, Painting)	3 hours
6. Socially Useful Productive Work and Community Service	6 hours

Classes V/VI-VII/VIII	**Time Allocation (per week)**
7. Games Physical Education and Supervised Study	4 hours
Total	32 hours

Classes V/VI-VII/VIII	**Time Allocation (per week)**
1. Language*	8 hours
2. Mathematics: Alternative I: Or Alternative II:	4 hours
3. Science: Alternative I: (Theory and or Practical) Alternative II:	5 hour
4. History, Civics and Geography – as one course	3 hour
5. One of the following: The Arts (Music, Dancing, Painting etc.), Home Science, Agriculture, Commerce, Economics, Social Reconstruction, Classical Languages* etc.	2 hours
6. Socially Useful Productive Work and Community Service	6 hours
7. Games Physical Education and Supervised Study	4 hours
Total	32 hours

Important Note:

A. The scheme for classes VIII/IX-X is illustrative only and States/Education/Examination Boards may decide to make some subjects **Compulsory** and the other **Elective**.

B. In the public examination at the end of Class X the number of subjects for external evaluation should not exceed seven.

- **Note on Languages:**

A. Three-Language Formula:

The recommendations in the Report of the Education Commission 1964-1966, (Pages 334-336) published by the National Council of Educational Research and Training, 1971, are reproduced:

"8.34.

We, therefore, recommend a modified or graduated three-language formula to include:

- The mother-tongue or the' regional language:
- The official language of the Union or the associate Official language of the Union so long as it exists: and
- A modem Indian or foreign language not covered under (1) and (2) and other than that used as the medium of instruction."

"8.35.

Implications of the Modified Formula. At the lower primary stage only one language should be studied compulsorily-the mother-tongue or the regional language, at the option of the pupil. In the case of the vast majority of pupils, the language of study at this stage will be the regional language which will also be their mother-tongue. Some children belongs; in to the linguistic minorities may also opt for instruction in the regional language, because of its great advantages; but this cannot be forced on them, and they have the right under the Constitution to have facilities provided for their primary education through their mother-tongues. The State Governments should, therefore, provide primary schools teaching through the mother-tongue for the children of linguistic minorities if they desire to have such an education, subject to the usual condition approved by the Education Ministers'

Conference (1949) that the minimum number of such children should be 10 in a class or 40 in a school. It is desirable that such children should have a working knowledge of the regional language also. Facilities for its study should, therefore, be provided, on an optional basis, from Class III onwards. We do not favour making the study of regional language compulsory at this stage for children of linguistic minorities, as has been done in some States at present. We are also not in favour of teaching English as a second language at this stage. This has been discussed further in a later section."

"8.36.

At the higher primary stage only two languages should be studied on a compulsory basis: (I) the mother-tongue or the regional language, and (2) the official or the associate official language of the Union.

For almost all the pupils in the Hindi areas and for a majority of them in the non-Hindi areas, English will probably be the second language, but a large proportion of the pupils in non-Hindi areas may also opt for Hindi. In addition, facilities should be provided for the study of a third language on an optional basis, so that the children in Hindi areas whose mother-tongue is not Hindi and the children in non-Hindi areas who have taken English as the second language may study the official language of the Union, if they do desire."

"8.37.

At the lower secondary stage (Classes VIII-X), a study of three languages should be obligatory; and a student should be under an obligation to study either the official language of the Union or the associate official language which he had not elected at the higher primary stage. By and large, the pupils in the Hindi areas will study Hindi, English and a modern Indian Language, while the vast majority of pupils in non-Hindi areas will learn the regional

language, Hindi and English. In the selection of the modern Indian language in Hindi speaking areas, the criterion should be the motivation of the pupils for studying that language. For instance, in the border areas of a State, people are generally interested in studying the regional language across the border and this could well be the third language to be studied."

''8.38.

It is true that English will be the most important library language to be studied at this stage. We, however, think that it is also necessary to encourage the study of other important library languages like Russian, German, French, Spanish, Chinese or Japanese. Facilities for their study should be provided in a few selected schools in each State and it should be open to the students to study them, either in addition to, or in lieu of English or Hindi. Similarly, provision should be made, in a few selected schools in the non-Hindi areas, for the study of modern Indian languages other than Hindi and the regional language. It should be open to the students to study these languages, as stated earlier with regard to library languages, either in addition to or in lieu of English or Hindi."

"8.39.

In the higher secondary classes, which will serve largely as a preparatory stage for higher education, only two languages need be made compulsory and the students should have the option to select any two of the three languages studied earlier or a combination of any two languages taken from the following groups: (I) modern Indian languages; (2) modern foreign languages; (3) classical languages Indian and foreign. There is of course no bar to a student studying one or more additional languages on an optional basis."

B. Study of Classical Languages:

"8.48.

We recognize the importance of the study of classical languages and of the special claim that Sanskrit has on the national system of education. But we do not agree with the proposal to include Sanskrit or other classical languages in the three language formula. In our opinion, this formula has to be restricted to the modern Indian languages only. We are in favour of the proposal of adopting a combined course of the mother tongue and Sanskrit. But this is not a very popular proposal. Under these circumstances, classical languages can be provided in the school curriculum on an optional basis only. This may be done from Class VIII onwards."

2.3.3 National Policy on Education (1986-1992):

a. Introduction:

In a democratic country, there is need of democratization of education. In order to achieve education for all, so many initiatives and attempts have been made by the Government of India. Through policy formulation, the government lays down directives for the future

course of action towards realizing some perceived goals. In a democratic society, the goal lies in the various aspects of the welfare of the people. For the wellbeing of the Indian nation and the Indian society at the national and local level, definite thrust has been laid down on education. Even in early Indian history, education figured in the administrative policies of the government. The modern trend of development can be fruitfully traced to the British colonial government about which we have already discussed in the previous units. We have already come to know that such efforts and measures are being continued in the post-independence time in India. In this unit, we shall focus on one of the important initiatives of the government of India towards democratizing education. This is reflected in the National Policy of Education, 1986 and it's Modified Policy, 1992 which is known as Programme of Action.

b. National Policy on Education (1986-1992):

In 1968, when the National Policy of Education was formulated for improving the educational scenario in our country, there it was envisaged that it would be followed by a 'five yearly review to progress and working out of new policies and programmes.' Regarding this statement, at the time of formulation of every new Five-Year plan, a review has been made to assess the drawbacks or shortcomings as well as achievements of education and finally to decide on some plans or programmes for the coming Five Years. It is through making the policies and programmes that every country seeks to develop its system of education to express and promote its unique socio-cultural identity and also to meet the challenges of the times. The National Policy of Education of 1986 is the result of the reviews which was discussed and adopted during the budget session of1985 when Rajiv Gandhi was the prime minister of India. Again, a committee was set up under the chairmanship of Acharya Rammurti in May 1990 to review National Policy of Education (NPE) and to make recommendations for its modifications. The Central Advisory Board of Education, a committee set up in July 1991 under the chairmanship of Shri N. Janadhana Reddy, Chief Minister of Andhra Pradesh; considered some modifications in NPE taking into considerations the report of the Rammurti Committee and other relevant development having a bearing on the policy. This Committee submitted its report in January 1992, which is known as National Programme of Action of 1992. This policy aimed to promote national progress, a sense of common citizenship and culture, and to strengthen national integration. It laid stress on the need for a radical reconstruction of the education system, to improve its quality at all stages, and therefore gave much greater attention to science and technology, the cultivation of moral values and a closer relation between education and the life of the people.

c. Objectives:

The main objective of the National Policy of Education of 1986 and Programme of Action, 1992 was to establish a national system of education implies that all students irrespective of caste; creed, sex, and religion have access to education of a comparable quality. Actually, the objectives of this policy had been divided into the several aspects.

- In relation to Elementary Education, followings are the major objectives of National Policy of Education 1986 are mainly:

i. Universal access and enrolment
ii. Universal retention of children up to 14 years of age and
iii. A sustainable improvement in the quality education to enable all children to achieve essential levels of learning.

- Regarding Secondary Education, National Policy of Education stressed on the improvement of the quality of secondary education. Effort to be made to provide computer literacy in as many secondary level institutions to make the students equipped with necessary computer skills.
- Regarding higher education, National Policy of Education and Programme of Action of 1986 and 1992 emphasized that higher education should provide to the people with an opportunity to reflect on the critical social, economic, cultural, moral and spiritual issues.
- Thus, the basic objectives of the National Policy of Education of 1986 and Programme of Action of 1992 emphasized that education must play a positive and interventionist role in correcting social and regional imbalance, empowering women, and in securing rightful place for the disadvantaged and the minorities. Government should take a strong determination and commitment to provide education for all, the priority areas being free and compulsory education, covering children with special needs, eradication of illiteracy, education for women's equality and special focus on the education of S.C. s (Scheduled caste) and S.T. s (Scheduled tribes) and Minorities.
- The educational policy as highlighted in the N.P.E. also emphasized on enhancing and promoting the vocationalization of education, adult education, education for the mentally and physically challenged persons, non-formal education, open universities and distance learning, rural university, early childhood care and education. Delinking degrees from job was also one of the basic objectives of National Policy of Education of 1986.

2.3.4 Ramamurthy Committee:

Acharya Rammurti Committee was appointed by National Front government headed by V.P. Singh to review the NPE, 1986. The Committee was asked to review NPE, 1986 and its implementation and to make recommendations for the revision of the policy and the action necessary for implementation of the revised policy.

Rammurti Committee Rammurti Committee recommendations were based on the principles of equality and social justice, decentralization of education and management, participative educational order. The Committee's main recommendations included:

a. Education must provide a techno-informative knowledge base
b. Education must provide opportunities to acquire skills
c. Education must play an interventionist and catalytic role for promoting national cohesion and unity
d. The Committee favoured a common school system to secure equity and social justice
e. Women's education to be construed not in terms of access but in terms of empowering them
f. Bringing reforms in examination system as the existing one tilts heavily in favour of the privileged who have access to special teaching material and special coaching

g. Favoured decentralization of educational planning and management from top to the bottom
h. The Committee viewed human beings were not to be valued as resources or economic commodity. For this Rammurti Committee recommended for changing the name of the Ministry of HRD to Ministry of Education by saying that education must stress upon not only on science and technology but also upon spiritual development of human beings
i. The Committee also recommended for providing 6 per cent of GNP for education; making all technical and professional education self-financing; increasing fee payable by students at higher education level; releasing pressure on government resources by arranging institutional loans for those who could afford; imposing educational Cess and raising community contribution.

2.3.5 Yashpal Committee:

The Higher education and research committee (The Committee to Advise on Renovation and Rejuvenation of Higher Education in India) headed by Prof. Yashpal was constituted by union government to evaluate the functioning of higher education bodies (UGC, AICTE and others), status of higher education and research in institutes of higher learning (universities, colleges and other education providing institutes) and to suggest valuable reforms. The committee gave its report in year 2009 after thorough evaluation, discussions and inclusion of views of various online forums.

Beside other reforms, the report mainly suggested the formation/constitution of 'National Commission for Higher Education and Research' (NCHER) and merging of UGC, AICTE and others higher education bodies into it. While many points of report were criticized for different points (like draft is not having democratic character in nature as it takes away the power of state governments to appoint vice-chancellors in state universities); the majority of academia welcomed the draft with expectation to bring about the dramatic change in academic scenario, controlling and regulation of higher education and research in India.

Ultimately, when the Bill becomes an Act (the effective date of Act presumably not later than one year), the Acts of higher institutions i.e. the UGC Act of 1956, the AICTE Act of 1987 and the National Council for Teacher Education Act of 1993 shall stand repealed and thus ultimately these institutions will cease to exist. In future, the academia seems to see the creation of different bodies as scheduled by the Bill and the result of that to make nation's universities more autonomous, qualitative, research oriented and nationally integrated institutions as Professor Yash Pal has envisioned in his report.

a. Recommendations of the Yashpal Committee Report:

Following are the important recommendations of the Yashpal Committee Report:

- In the Final Report submitted by the committee to the Ministry of Human Resource Development (MHRD), it was recommended that the deemed university status should be abandoned.

- It was also recommended that all the deserving deemed universities should be either converted to full-fledged universities or would have to be scrapped.
- The report also said that a GRE like test needs to be evolved for the purpose of university education.
- The committee recommended that bodies like the NCTE, AICTE, UGC and others must be replaced by a Commission for Higher Education and Research (CHER) – a seven-member body.
- It was recommended that this new regulator must be free from political pressures.
- The position of the chairperson of CHER was recommended to be parallel to that of the election commissioners.
- It was recommended that the universities must take up all the academic responsibilities, restricting the jurisdiction of the other regulators such as the Bar Council of India, the Medical Council of India, etc. to administrative matters alone.
- The report said that IITs and IIMs should be encouraged to diversify and expand their scope to work as full-fledged universities.

b. Yash Pal Committee – Learning without Burden:

In 1993, the Ministry of Human Resource Development (MHRD), Government of India, had set up a National Advisory Committee, with Yash Pal as chairman, to go into the issue of overburdening of school children. This committee is also sometimes called the Yash Pal Committee. Hence, students should keep in mind; there are two Yash Pal Committees as mentioned in the table below:

Table 2.1: Yash Pal Committees

Year	Name of the Committee (both are also known as Yash Pal Committee)	Chairman	Report	Objective
2009	Committee to Advise on Renovation and Rejuvenation of Higher Education	Dr. Yash Pal	Yash Pal Committee Report/Report on Higher Education	To advise on renovation and rejuvenation of higher education
1993	National Advisory Committee	Dr. Yash Pal	Learning without Burden	To advise on the ways and means to reduce the load on school students at all levels particularly the young students, while improving quality of learning including the capability for life-long self-learning and skill formulation.

c. A few major recommendations of the Yash Pal Committee, 1993 are given below:

- The process of framing of the curriculum and writing of textbooks should be decentralized and involve more teachers.
- Education committees should be constituted at the village, block and district levels.
- The jurisdiction of CBSE should be restricted to KVs and the Navodaya Vidyalayas only, and all other schools should be affiliated with the respective state boards.
- Interview tests and interviews for nursery admissions should be done away with.
- The norms for giving private schools recognition need to be more stringent, to avoid commercialization.
- There should be no compulsion for school children to carry heavy books to school.
- Primary school children should not be given any homework. And even for the higher classes, it should be non-textual.
- The teacher-pupil ratio should be reduced to at least 1:30.
- Greater use of electronic media.
- It also recommended many steps for improving teacher training.

The report of the committee, entitled "Learning without Burden", is now regarded as a seminal document in Indian education.

- Considering these observations, the Executive Committee of the NCERT decided at its meeting of 2004, to revise the National Curriculum Framework.
- The National Curriculum Framework (NCF) which had been prevailing, without any change, for 14 years, is to be reviewed by the National Council of Educational Research and Training (NCERT). This revision is said to be in accordance with the new National Education Policy (NEP).
- So far, the NCF has undergone revision four times, in 1975, 1988, 2000 and 2005, making the proposed new review to be the fifth.

2.3.6 Recent Recommendations in Secondary Education:

A. NCF-2005:

You must have observed that starting from the implementation of National Curriculum Framework – 2005, lot of changes have taken place in maintaining quality in Secondary Education. In light of the recommendations of the National Curriculum Framework – 2005, NCTE has also developed National Curriculum Framework for Teacher Education – 2009. Further realizing the global changes and widening the perspectives and contexts of School and Teacher Education, it has recently notified in NCTE Regulation, 2014, to revise all teacher education curriculum.

The above developments on renovating curriculum for school and teacher education are necessarily mean to cope with the developments in global situations on education by addressing the curricular issues and quality concerns in Secondary Education. The present Unit is specifically designed to make you understand the relevance of present Secondary Curriculum in the light of the concerns of NCF, 2005. In Secondary Education Curriculum,

there is still a problem to address the specific curricular areas of knowledge like, peace and values, work, life skills, art, health & physical education. These areas of knowledge have not been equally represented in Secondary School Curriculum in comparison with the core areas of curriculum such as Languages, Science, Social Science, and Mathematics. Keeping in view the above issues, the present Unit will also make you understand and critically analyze in order to address the issues of specific curricular areas of knowledge. Assuring quality in Secondary Education is also another important component of this Unit. The quality indicators and strategies for quality improvement in Secondary Schools have also been discussed in this Unit.

a. Objectives:

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

- Examine the relevance of present Secondary Curriculum;
- Critically analyze the curricular and quality assurance concerns of National Curriculum Framework – 2005 on Secondary Education;
- Discuss the essence of developing meta-cognitive skills and creative capitals in Secondary Education;
- Reflect your opinion on addressing the issues of specific curricular areas of knowledge in Secondary Education; and
- Get acquainted with the quality indicators and strategies for assuring quality in Secondary Education.

I. Relevance of Present Secondary Education Curriculum:

The two years period of Secondary Education is very crucial in terms of accommodating intense physical changes, vibrancy and energy of the adolescent children. Adjusting the children to the secondary classes who are at the transitive stage, coming from eight years of elementary classes and having high expectations from senior secondary classes, is really a difficult task for the schools and teachers as well. The widening of the thinking horizons of young children at this stage; their knowledge about world of work; and their personal, academic and other areas of interest make the teachers and the administrators sensitized enough to formulate suitable curriculum for them. The main aim of secondary curriculum should be to satisfy the needs and the aspirations of the adolescents. Keeping in view the above, when we critically analyze the relevance of present secondary education curriculum, we find many crucial academic issues which need to be addressed. Let us discuss some of the major concerns:

- Present secondary education curriculum is more focused on the core subject areas like; Languages, Social Sciences, Science, and Mathematics. It has been observed that most academic experiences of the young children at this stage revolve around the above subjects. But it is a fact that in this stage, the children develop ideas and interest in many other areas of knowledge which they get very less opportunity to opt for and perform in. It is therefore, secondary education curriculum will be more relevant if the above areas of knowledge and interest of the children will be equally included and practiced in the school curriculum.

- If we critically analyze the curricular practices of the secondary students, we find that students hurriedly complete their entire Secondary Education Curriculum by the end of first term in Class-X. This is because of the craze to acquire high percentage of scores so that they can get admission in their choice of senior secondary schools and also in the stream they like. By doing so, they simply complete the secondary courses without understanding the details of the contents. This issue needs to be addressed. Positive attitudes of the students and the teachers need to be developed for completing the courses within the given time (not earlier) with detailed understanding. In this regard, the relevance of present secondary curriculum may be emphasized by conducting suitable guidance and counseling interventions for the students.
- The curriculum at the senior secondary stage is different from the secondary stage of education. At Senior Secondary stage, the students get an opportunity to choose the subjects and areas of study of their interest. But at the Secondary stage, hardly any choices are given to the students. Choices are given in few schools. But, interest of the students towards different vocations and world of works actually begins from secondary stage onwards. At this stage they also start developing ideas about various disciplines. A variety of vocational subject choices needs to be included in the secondary education curriculum for making it more relevant.
- The relevance of secondary education curriculum may be enhanced by connecting students' life experiences with the academic inputs that they get from the schools and widening their experiences to take a decision for particular types of study and professions they like.

II. Concerns of NCF (Secondary Education) – 2005:

National Curriculum Framework, 2005, published by NCERT, is quite significant for bringing contemporary changes in school and teacher education curriculum. Keeping in view the changing perspectives and contexts of school education across the globe, necessary curricular changes have been recommended in NCF, 2005.

The major features of NCF, 2005 has been articulated in five different areas of School Curriculum, they are 'Perspectives of Education'; 'Learning and Knowledge'; 'Curricular Areas, School Stages and Assessment'; 'School and Classroom Environment'; and 'Systemic Reforms'. Let us focus on the major concerns of NCF, 2005, for Secondary Education

Perspectives of Education:

- To strengthen a national system of education for a pluralistic society like India.
- To integrate examination into classroom learning and also to make it more informal, alternative, and flexible.
- Reducing the curriculum load based on insights provided in 'Learning without Burden'.
- To practice curriculum based on enshrined values and caring concerns within the democratic policy of India.
- To ensure quality education for all levels of School Education.
- To ensure that irrespective of caste, creed, religion and sex, all are provided with a standard curriculum.

Learning and Knowledge:

- To focus on holistic development of the students to enhance their physical and mental development.
- To create an inclusive environment in the schools and classrooms for all students.
- To provide ample opportunity in the school for children voicing their thoughts, curiosity, and questions in curricular practices.
- Bringing children to connect their knowledge across disciplinary boundaries and to help them construct their knowledge.
- Engaging learners in observation, exploration, discovery, analyzing, critical reflection, inquiry etc. with the content knowledge.
- Connecting children's experiences and local knowledge with the content presented in the textbooks and practice of pedagogy.
- Encouraging students to interact with peers, teachers and other people which would open up many more rich learning opportunities.

III. Curricular Areas, School Stages and Assessment:

Language: (a) Skills of language such as speech and listening, reading and writing across the school subjects and disciplines need to be practiced. (b) Discussing the functions of language across the curriculum. (c) To implement three languages formula including mother tongue as the medium of instruction at the elementary level. (d) English needs to find its place along with other Indian languages. (e) The multilingual character of Indian society should be seen as a resource for the enrichment of school life.

Mathematics:

- Provide scope to students about Mathematics as a discipline, because at the secondary stage, students begin to perceive the structure of Mathematics as a discipline.
- Make familiar the students with Mathematical communication such as: defining terms and concepts; use of symbols; stating propositions and providing justifications.
- Consolidating Mathematical modeling, data analysis, and interpretation.
- Individual and group exploration of connections and patterns, visualization and generalization, and making and proving conjectures.
- Use of appropriate tools that include concrete models as in Mathematics laboratories and computers.
- Teaching Mathematics should enhance children's ability to think and reason, to visualize and handle abstractions, to formulate and solve problems.

Science:

- The language of Science teaching along with the content and process needs to commensurate with the age and cognitive abilities of the learners.
- To engage learners in acquiring scientific methods and processes that will help to nurture curiosity and creativity of the children particularly in relation to the environment.

- To make the learners acquainted with their environment, to equip them with the requisite knowledge and skills to enter into the world of work.
- Systematic experimentation for verifying theoretical principles and working on locally significant projects are to be an important part of the science curriculum at the Secondary stage.

Social Science:

- To focus on interdisciplinary approach of learning History, Geography, Economics, Sociology, and Political Science and dealing with the key national concerns such as gender, justice, human rights, and sensitivity towards the marginalized groups and minorities.
- Contemporary Indian issues including deeper understanding of the social and economic challenges needs to be initiated.
- Social Science content needs to be focused on conceptual understanding rather than linking up facts to memorize for examination.
- Work, Art, Peace, Health and Physical Education, and Habitat and Learning needs to be properly represented in the Secondary curriculum not only in Social Science but also in other subjects.

School and Classroom Environment:

- Physical environment in the School has to be maintained favorable in terms of infrastructure, adequate light and ventilation, ratio of students and teacher, hygiene and safe environment.
- School should treat students with equality, justice, respect and dignity.
- Implementation of inclusive education policy where the differently-abled and children from marginalized sections get equal opportunities.
- School should also be well equipped with libraries, laboratories, and educational technology laboratory.

Systemic Reforms:

- Ensuring quality at every sphere of school education including curricular activities, teaching-learning processes, examination, and development of overall personality of the learners.
- Meaningful academic planning has to be done in a participatory manner by the head master/principal and the teachers.
- Suggested reforms for teacher education programmes.
- Enhancing participation of the local government in school activities so that the democratic participation in development can be realized.
- Reducing stress and enhancing success in examination.
- Availability of multiple textbooks to widen teachers' choices and provide for the diversity in children's need and interest.
- Sharing of teaching experiences and diverse classroom practices to generate new ideas and facilitate innovation and experimentation.

- Development of syllabi, textbooks, and teaching-learning resources could be carried out in a decentralized and participatory manner involving teachers, experts from Universities, NGOs and teachers' organizations.

IV. Developing Meta Cognitive and Creative Capital:

You might know that learning takes place both in formal and informal processes. The difficulty of our schooling system is that it gives more stress on capturing the formal process of learning and on the contrary, it simply neglects the informal process. Knowledge construction is not only to focus on the formal process of learning, rather, it is evident that most learning experiences take place in an informal set up. It is, therefore, developing meta-cognitivist skills among the students which integrate formal and informal learning of the students need to be emphasized. It is, therefore, required to accomplish the major three pedagogical approaches, i.e. behaviorism, cognitivist, and constructivism in teaching and learning process. The contribution of cognitive abilities can never be neglected in the process of learning. The ability to access, analyze, and synthesize knowledge; select and evaluate knowledge in an informal world; ability to develop and apply several forms of intelligence; learning in collaboration (groups and peers); face, transform, and peacefully resolve conflicts; deal with ambiguous situations, unpredictable problems, and unforeseeable circumstances; and cope with multiple careers are the meta-cognitive abilities of the learners. Secondary schooling of the learners needs to be focused on the above metacognitive skills and practice it as an integral part of the curriculum. 'Learning to Think and Learning to Learn' are the philosophy to understand and realize the meta-cognitive skills.

Establishing creative capital by using the meta-cognitive skills of the learners are really the useful resources for the knowledge society. Creative capital is the capability of an individual, groups, family, and community to imagine and express new possibilities through creative activity. Creative capital defined as an 'arsenal of creative thinkers whose ideas can be turned into valuable products and services' (Florida & Goodnight, 2005: 124). Others argue that creative capital is a valuable resource in today's creative workplaces in a wide variety of industries including, computing, engineering, architecture, science, education, arts and multimedia (McWilliams and Dawson, 2008). The form of work that requires creative ideas includes problem–solving, inquiry, generating solutions and addressing the 'wicked problems' involved in work with ill-defined often complex problems (Rittel and Webber, 1973). Because of the influence of globalization, creating a creative capital is not only useful for industrial process rather it is important to include in the school curriculum starting from secondary stage and students should practice it.

V. Addressing the Specific Curricular Issues in the Curriculum:

Traditional approach of organizing curriculum is mostly based upon the subject-centered approval. It often creates many difficulties for accommodating many areas of knowledge such as: Arts and Craft education, Work education, Peace education, Life skills education, Sports and physical education, Value education etc. These areas of knowledge have not yet been treated as distinct disciplines to be included in the school curriculum like; study of Languages, Social Science, Science, and Mathematics. 'Those important areas of

knowledge become sidelined and are then described as 'extra' or 'co-curricular' areas of study instead of being an integral part of the curriculum' (NCF, 2005, p.29). This section will particularly address the issues and problems of specific curricular issues in the curriculum. If we analyze the definition of education given by Mahatma Gandhi, "by education I mean an all-round drawing out of the best in child body, mind, and spirit", we find that it focussed not only the development of human intellect alone but also the holistic development for total development of the personality.

In traditional curriculum, though it demands that all types of disciplinary knowledge and practices are included in the curriculum, but really if we analyze, we find that the specific areas of knowledge are hardly integrated in the curriculum. However, few of them have haphazardly been placed in the time table of school curriculum that is also isolated from other areas of disciplinary knowledge in the school. Let us discuss some of the important specific curricular areas included in Secondary School curriculum.

- **Education for Peace:**

Unprecedented growth of violence, intolerance, fanaticism, dispute, and discordance are a constant threat for our society. To make it stop, there is the need to train children and young adults to practice tolerance and peace at home, school, and society. In this regard, school is the important agent to include 'Education for Peace' in its curriculum. It essentially nurtures ethical development, inculcating the values, human rights, justice, tolerance, social responsibility, attitude and skills required for living in harmony with oneself and others. If we analyze our school curriculum, we find that very little components are included which address the issue of peace education; that too, is also limited to very few topics and subjects. It is important to mainstream peace education in school curriculum, not just limiting it to few topics or subjects, rather presenting in the contents across the subjects of the curriculum in various forms like; in stories, narrations, activities, interactions, etc. The strategic inclusion approach of peace education in school curriculum may bring benefits for the children to understand the importance of peace in life and live happily.

- **Work and Education:**

Work is an integral part of every individuals' life, be an adult or child. It is important to understand that both the adults and the children are socialized in the same way. A child needs to be educated in the school in the way it required. Inclusion of work education in the school curriculum should never be used as the justification for the exploitation of the children; on the other hand, it needs to be included as an opportunity of learning for the children and preparing them for their future lives.

Work is also an arena for learning for children at home, school, society, or workplace. The concept of Socially Useful and Productive Work (SUPW) period in school curriculum makes the children appreciate the worth of social life and that valued and appreciated in society. It enables the children making disciplined, self-controlled, focusing mental energies, and keeping emotions under check. But the stereotypical inclusion of SUPW periods in the school curriculum hardly helps the children the way it is aimed to, when designed. It needs to be more institutionalized.

- **Life Skills and Value Education:**

Life skills education is also equally neglected in school curriculum. True education is not merely teaching the subjects and certifying learners. It should enable the children to be get acquainted with the life skills and values. "Nurturing Life-skills" includes developing an improved self-esteem, having empathy towards others and different cultures, improving their critical and creative thinking and making them better at problem solving with a balanced approach towards decision-making.

The core life-skills must be integral to the whole process of education (CBSE, 2015). As a teacher, you might know that the practice of life skills in school curriculum is limited to conducting few activities and including it in student's report card. This approach will not serve the basic purpose of practicing life skills in school curriculum. Sometimes it is difficult to assess the life skills as most of them are qualitative in nature. These can only be observed and descriptive reporting may be done. But the challenge is how to address and integrate it in the school curriculum. There is a need of strategic accommodation of core life skills in the topics of various subjects in the curriculum. It should necessarily be, an integrated part of core curriculum. Like the life skills education, there is also a need to incorporate value education in the school curriculum. 'The Aims of Education are landscaped in the guiding principles of Constitution which reflect a commitment to democracy and the values of equality, justice, freedom, concern for others' well-being, secularism, respect for human dignity, and human rights. Education should aim to build a commitment to these values, which are based on reason and understanding. The curriculum, therefore, should provide adequate experience and space for dialogue and discourse in the school to promote such a commitment in children' (CBSE, 2015-16). The concept of value education in school curriculum is not new. Almost all the education committees and commissions have recommended the inclusion of value education in curriculum, especially at school level. The Central Board of Secondary Education and all State boards of school education have tried to incorporate constitutional and other personal and social values in their curriculum, but still it seems as inadequate and inappropriate inclusion in the curriculum. There is the need of integration of values across the subjects in the curriculum at all level of school education.

- **Art and Craft Education:**

From decades, there has been a debate about whether the Arts and Crafts education should be included in school curriculum, but substantial development has not yet been achieved. Still it is not considered in the mainstream of school curriculum. Sometimes, it is included in the school curriculum but isolated from the core subject areas. The art and heritage craft needs to become an integral component of learning in the school curriculum. Children's skills and abilities need to be nurtured in these areas and they should not be treated as mere entertaining fringes in the school curriculum.

The sense of creativity, appreciation, skills, aesthetics, and value based learning opportunities are possible through art and craft education. Though there is a rising scope for career and jobs in arts and crafts at the higher stages, but substantial inclusion in lower level school curriculum is yet to be done.

- **Health and Physical Education:**

Health and physical education has a wide contribution towards the physical, social and emotional development of a child. It comes within the holistic definition of school education. It has also a widespread implication towards preventing undernourishment and communicable diseases. The NCF, 2005, recommended including health and physical education at all levels of schooling with special attention to vulnerable social groups and girl children. Introducing Yoga is also another important addition for health and physical education. The fragmented approach of incorporating the health and physical education programme in school curriculum is not going to make much difference. It needs to treat 'yoga, health and physical education' as a core part of curriculum. Allotment of time in school curriculum for yoga, games and sports must not be reduced or taken away under any circumstances.

- **Environmental Conservation and Sustainable Development:**

You might be aware about the environmental issues which are not limited to a particular Country or region. Global warming has made us conscious about relooking at developmental works at the cost of the extreme use of natural resources. Rising temperature and acute pollution in the environment causes global warming. You know that non-renewable resources get exhausted as they are consumed. Even the renewable resources, when consumed, take some time to get replaced. Crops are replaced quickly; soil nutrients and water may take several years to get restored. Many a times, resources also get unfit for use because of human activities. If we do not preserve the quantity and quality of our resources and protect our resources from depletion, a time may come when usable resources will be exhausted. In the name of development, the resource requirements of future generations cannot be limited or destroyed. For continuous economic development, we must ensure the future availability of resources. For this, we must conserve our resources. It means protecting them from getting polluted or depleted, so that they can be used in future. Proper strategic use of natural resources can be done so that present needs can be met without destroying the ability of future generations to meet their needs. Sustainable development also involves:

- Preventing wastage and excess conservation of resources.
- Protecting and controlling the kinds of pollution.
- Maintaining biological diversity on earth.
- Recycling reusable resources.
- Using alternative resources for developmental work.

Realizing the gravity of the matter, environmental conservation and sustainable development now become an important academic area of study in the university education system across the world.

For better implementation of the policies of environmental construction and sustainable development, there is a need to include it in the curriculum of School education at all levels. Positive attitude may be developed among students to conserve environment and righteous use of resources. In a variety of ways, this can be addressed in the school curriculum, like:

a. By including it in the main course of school curriculum.
b. By organizing various activities in the schools such as: environmental debate and discussion, workshops, exhibitions, and field study.
c. By organizing community awareness programmes, road shows etc.
d. By awarding prizes to the individual, groups, and community for success stories in environmental conservation. This may be done at School, local, national, and international level.

- **Quality Assurance in Secondary Education:**

As you know, secondary education is a very crucial stage in every student's life. At this stage, they get a base for detailed studies in any particular discipline of their interest in future and go for higher education. It is, therefore, required to get substantial knowledge at this stage. Currently, you might have observed that a lot of changes have taken place in the curriculum and pedagogy for transacting curriculum in the School education including Secondary education. Curriculum reform is the most important aspect for assuring quality in secondary education. The curricular environment and teaching-learning process of the school is the heart of the system. It is, therefore, that the curriculum needs to be revised and quality secondary education should be retained. Assuring quality is not an independent and isolated matter. It depends upon many criteria such as practicing quality indicators and strategies adopted for quality improvement in secondary education. Let us discuss the quality indicators and the strategies for improving quality in secondary education.

a. Quality Indicators for Secondary Education:

The most important areas of concerns for assuring quality in secondary education are curriculum, teaching-learning resources, pedagogy etc. The indicators for assuring quality may further be divided into two major sections such as: broad quality indicators and specific quality indicators. Let us discuss the necessary indicators that need to be taken care of into two major sections.

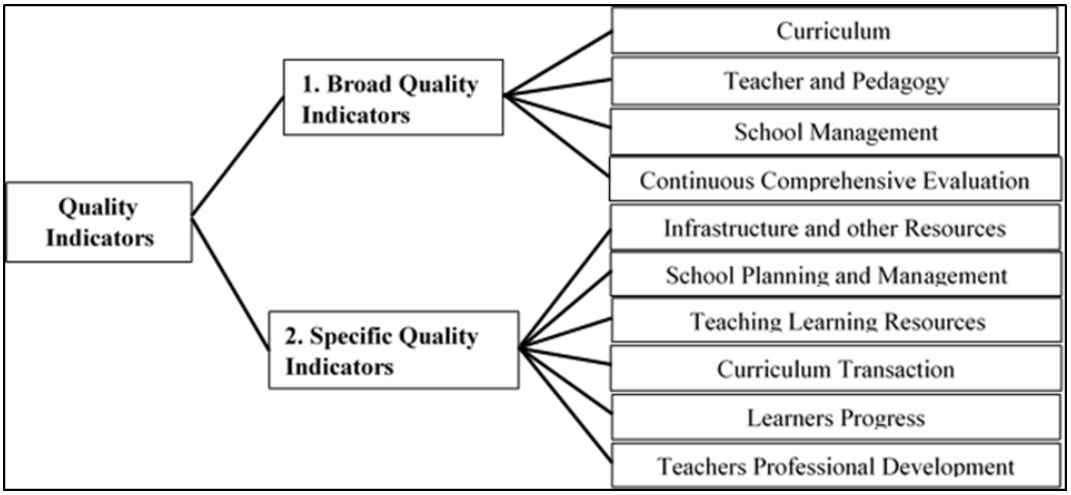

Figure 2.1: Quality indicators for quality assurance in Secondary Education

i. Broad Quality Indicators for Secondary Education:

Let us discuss the indicators under the broad quality indicators for assuring quality in Secondary education.

2.4 Curriculum:

- Ensuring Learner friendly inclusive curriculum at the Secondary stage, adequately equipped with subject knowledge; knowledge on art and aesthetics, work, physical, peace education, science, practical skills, etc.
- Emphasizing the social context of education in secondary curriculum.
- Engaging learners in the process of acquiring and constructing knowledge through varieties of teaching-learning activities.
- Requiring learner's reflection on texts, contents, and activities in curriculum.
- Including the components of curriculum like art, craft, health and peace education in the subjects of Science, Mathematics, Social Sciences and Languages.
- Providing opportunity to the learners to discuss with teachers, about social and national concerns such as social discrimination with regard to gender and marginalized groups, unemployment, poverty, etc.
- Providing scope to the learners for developing vocational skills in the areas of their interest in the curriculum.

2.5 Teacher and Pedagogy:

- Well qualified and eligible teachers for teaching in secondary classes.
- Properly coped with Pedagogical Content Knowledge (PCK).
- Awareness about the current development of pedagogical practices as well as current trends in specific subject areas.
- Linking curriculum, syllabus, and text books with the learner's experiences.
- Maintaining regularity, punctuality and cooperation with school management. λ Practicing research findings in the classroom in the field of school education and also able enough to conduct research at the school level.
- Utilizing the experiences of the learners and to use various innovative ways of teaching.
- Understanding the contextual use of generic, course, and content specific pedagogy in teaching.
- Understanding the students, their ability, aptitude, interest, attitude, and personality patterns.

2.6 School Management:

- Essentiality of academic leadership quality of the head teachers and the principles for effective management of schools.
- Well oriented about the emerging curricular vision of flexibility, contextually, perspectives, and plurality.
- Informed about the goals of Universalization of Secondary Education and various schemes subsumed under RMSA related to equity and other concerns.

- Motivates teachers to create an inclusive environment in the schools, ensure participation of the students in classroom interaction, and provide opportunities for the teachers for their professional development.

2.7 Continuous Comprehensive Evaluation:

- Integrating assessment as one of the components in teaching learning process.
- Ensuring assessment strategies which enhance learning of students and assess behaviour of students.
- Creating an environment for practicing formal as well as informal strategies of assessment both in and outside the classroom situations.
- Practicing constructive assessment techniques such as observation, peer and self-assessment, group participation, etc.

2.8 Specific Qualitative Indicators for Secondary Education:

2.8.1 Infrastructure and other Resources:

School infrastructure and other resources are also necessary indicators for achieving quality in Secondary education. Effective transaction of the curriculum depends highly upon the material and other resources available in schools.

Conducive environment at the school, well equipped laboratories, libraries, ICT rooms, adequate number of classrooms, place for art and craft, games and sports, recreation, etc. needs to be maintained in the schools. Maintaining proper ratio of teachers to students is also another criterion for achieving quality in instruction.

2.8.2 School Planning and Management:

Ensuring proper planning and management in schools is necessary for assuring quality in schools. Starting from the beginning of the session till the end, there is a need for planning the school activities. Broadly the activities may be:

- Preparing school calendar depicting school times, hours of study at schools, time table for each class including space to adjust art & craft, health and physical education, library and reading work, practical activities, and recreations.
- Providing resource and other ICT based technical support to teachers for better academic interaction in the classroom teaching.
- Establishing an environment of weekly, monthly, and terminal meeting of the principal with the teachers, PTMs, and SMCs for better functioning of the Schools.
- Conducting remedial classes apart from the regular classes for accommodating the learners with certain learning difficulties in particular subjects and content.
- Creating inclusive classroom situations in the school. Teaching Learning Resources:
- Timely availability of syllabi, textbooks, workbooks, supplementary reading materials, etc. to the students.

- A set of syllabi, textbooks with teacher manuals, resource books, references, assessment manuals, teaching aids, etc. need to be timely available to the teachers.
- Practical kits for the practical oriented subjects should be available for both the teachers and the students as well.

2.8.3 Curriculum Transaction:

All the pedagogical strategies need effective curriculum transaction to be practiced. Adequate space for teaching art and craft, health and physical education, exhibitions, workshops, practical, skill development, enquiry and problem solving approaches of teaching needs to be practiced.

There is also the need for associating formal and informal assessment strategies in the process of teaching and learning. Care should be given to effective use of formative and summative assessment in the Schools.

2.8.4 Learners Progress:

Getting idea about the progress of learners, their areas of difficulties, mastery in subjects, achieving practical and skill based orientation in vocational subjects, engaged in field based activities, etc., are also important aspects for assuring quality in secondary education.

Diagnosing learning difficulties of the students in particular content and subjects and providing remedial instruction is also needed for achieving quality in instruction.

2.8.5 Teachers Professional Development:

Quality assurance in secondary education is also equally dependent upon the teachers engaged in transacting curriculum at the classroom level. Teachers need to be empowered, skilled, informative, and accept the timely changes occurred in secondary education in terms of curriculum, pedagogy, evaluation, and management of the schools. For this, regular professional development of the teachers is required. Professional development of teachers may focus on the following aspects:

- Participation of teachers in seminars, workshops, conferences organized in different themes on school education at local, State, and National levels.
- Participation of each secondary stage teacher in regular training programmes organized by Dept. of Education of concerned Governments, SCERTs, NCERT, CTE, and other institutes.
- Induction training programme for newly recruited teachers at the secondary level.
- Training of school principals and educational administrators in the area of school management and leadership.
- To motivate and sponsor teachers for pursuing different certificate and diploma programmes on teaching learning strategies, pedagogy of teaching different subjects, use of innovative techniques for classroom management, action research, students evaluation, educational administration and management, school leadership etc.

b. Strategies for Quality Improvement in Secondary Schools:

On the basis of the quality, indicators for assuring quality in secondary education, suitable strategies need to be adopted for improving quality in the Schools. The following strategies may be adopted for improving quality in the secondary schools:

- There is a need for involvement of all stakeholders in the management of schools. The individuals, and groups like the students, teachers, community members, members of the School Management Committees, local governments like the Panchayats and the Panchayat Samitis, Department of Education, SCERT, NCERT, DIET, Teacher Education institutes, etc. should be involved in the development of the Schools at their capacity.
- The School activities, including classroom teaching, and all other school functioning should be proceed as per the annual plan of the schools prepared before the commencement of the session.
- Changes and new developments in the school including curriculum and other areas should be communicated to all the stakeholders of the school and timely training should be initiated for the concerned individuals, if required.
- Appropriate strategies should be adopted for schools so that the syllabus should be completed in time with practicing all necessary learning experiences for the students, transparency in students evaluation, organizing academic activities including games & sports, cultural activities, visit to the places of importance, involvement in various project based activities in and out of school etc.
- Pedagogic strategies should be adopted which are child friendly, child centered, activity based, emphasizing inquiry and problem based learning, linking children's experiences with the learning strategies in the classroom, practicing assessment strategies which enhance learning of the students, and broadly, to practice the constructive pedagogic approach in the teaching and learning process in Schools

B. NCFTE-2009:

India has made considerable progress in school education since independence with reference to overall literacy, infrastructure and universal access and enrolment in schools. Two major developments in the recent years form the background to the present reform in teacher education - the political recognition of Universalization of Elementary Education (UEE) as a legitimate demand and the state commitment towards UEE in the form of 86th Amendment, 2002 which has led to the Right to Education Bill, 2008 and the National Curriculum Framework (NCF) for School Education, 2005.

The Bill has since been passed by the Parliament and the Right to Education Act has come into being making it mandatory for the state to provide free and compulsory education to almost 20 crore children in the 6-14 age group till class 8. The Right to Education Act mandates a schedule for the functioning of schools which includes a teacher: student ratio of 1:30 till a student population of 200 students at the Primary Stage. This would increase the demand for qualified elementary school teachers many times. The country has to address the need of supplying well qualified and professionally trained teachers in larger numbers in the coming years.

The NCF 2005 places different demands and expectations on the teacher, which need to be addressed by both initial and continuing teacher education. The importance of competent teachers to the nation's school system can in no way be overemphasized. It is well known that the quality and extent of learner achievement are determined primarily by teacher competence, sensitivity and teacher motivation. It is common knowledge that the academic and professional standards of teachers constitute a critical component of the essential learning conditions for achieving the educational goals.

The length of academic preparation, the level and quality of subject matter knowledge, the repertoire of pedagogical skills teachers possess to meet the needs of diverse learning situations, the degree of commitment to the profession, sensitivity to contemporary issues and problems and the level of motivation critically influence the quality of curriculum transaction in classrooms and thereby pupil learning and the larger social transformation.

Teacher quality is a function of several factors: teacher's status, remuneration and conditions of work, teacher's academic and professional education. The teacher education system through its initial and continuing professional development programmes is expected to ensure adequate supply of professionally competent teachers to run the nation's schools. Initial teacher education, especially, has a major part to play in the making of a teacher. It marks the initiation of the novice entrant to the calling and as such has tremendous potential to imbue the would-be teacher with proper motivation, knowledge, skills and attitudes. One may say, the bottom line of teacher education is the quality of teacher performance in terms of its impact on the learner and indirectly on larger social transformation as already stated.

I. The Changing School Context and its Demands:

A teacher functions within the broader framework of the school education system – its goals, curricula, materials, methods and expectations from the teacher. A teacher education curriculum framework needs to be in consonance with the curriculum framework for school education, and a teacher needs to be prepared in relation to the needs and demands arising in the school context. As such, it needs to engage with the questions of the learner, the learning process and the content and pedagogy of educating teachers. The expectations of the school system from a teacher change from time to time, responding to the broader social, economic and political changes taking place in the society. The issue of teacher education accordingly has to be discussed in the much wider and changing context and demands of school education.

School education has seen significant development over the decades since independence. According to Government estimates (Selected Educational Statistics – 2004-2005 - Ministry of Human Resource Development (MHRD), New Delhi) while 82% of the 20 crore children of the 5-14 age group were in school as per enrolment figures, it is equally true that nearly 50% of these children are dropping out before completing class 8 (MHRD Annual Report, 2007-08).

One finds the situation on the ground still ridden with difficulties. Regional, social, and gender disparities continue to pose new challenges. This reality increases the challenge that the prospective teacher will face in implementing the Right to Education Act.

The teacher must now be equipped not only to teach but also to understand her student and the community of parents so that children are regular in schools and learn. The Act mandates that the teacher would be responsible for enrolling all children seeking admission, reframing from inflicting corporal punishment, complete the given curriculum in the given time, assess students, hold parent meetings and orient them and as part of the school management committee, organize the overall running of the school

In addition, the NCF 2005, requires a teacher to be a facilitator of children's learning in a manner that the child is helped to construct her knowledge. It also opens out possibilities for the teacher to participate in the construction of syllabus, textbooks and teaching learning materials. Such roles demand that teachers be equipped with a better understanding of curriculum, subject content and pedagogy on the one hand and community and school structures and management on the other. The launch of the massive Serva Shiksha Abhiyan (SSA) in 2002 and the recent financial commitment and education Cess to augment the UEE mission have underscored the need to adequately prepare teachers to address the growing demand for quality education. A similar demand may arise in the context of the impending universalization of secondary education in the coming 5 to 10 years

The continued fragmentation of the school system poses, by far, the severest challenge to the national declaration of catering to the basic learning needs of all children in the 6-14 age group through the elementary education system in an inclusive setting. However increasing Privatisation and differentiation of the schooling system have vitiated drastically the right to quality education for all children. In addition, the pressures of globalization leading to commercialization in all sectors including education and increasing competition are forcing children into unprecedented situations that they have to cope with.

There is now public acknowledgement that the current system of schooling imposes a tremendous burden on children and they must be freed from it. The recommendations of the NCF 2005 on school curriculum are built on this plank. Educationists are of the view that the burden arises from treating knowledge as a 'given', an external reality existing outside the learner and embedded in textbooks. Knowledge is essentially a human construct, a continuously evolving process of reflective learning. This view of education points to the need to take a fresh look at teacher preparation. Education is not a mechanical activity of information transmission and teachers are not information dispensers. Teachers need to be looked at as crucial mediating agents through whom curriculum is transacted. Textbooks by themselves do not help in developing knowledge and understanding. Learning is not confined to the four walls of the classroom. We need to connect knowledge to life outside the school and enrich the curriculum by making it less textbook-oriented.

II. Present Teacher Education Scenario:

Unprecedented expansion of teacher education institutions and programmes during the past few years characterizes the teacher education scenario of today. With increasing school enrolments and the launch of pan-Indian primary education development programmes like Operation Blackboard (OB), (DPEP) and District Primary Education Programme. SSA to achieve UEE, there was a natural increase in demand for teachers. Added to this, the backlog of untrained teachers in the system and the essential requirement of pre-service teacher

certification for appointment as a teacher led to mounting pressure on existing institutional capacity. The demand far exceeding supply, market forces have taken over causing unprecedented rise in the number of teacher education institutions in most parts of the country. The escalating demand for trained teachers and the belief that a training certificate acts as collateral against future unemployment has made teacher education a lucrative business proposition. It has also led to large scale mushrooming of substandard teacher education institutions. From 3489 courses in 3199 institutions and an intake of 2, 74,072 in 2004, th e number's in December, 2008 swelled to a whopping 14,523 courses in 12,266 institutions with an intake of 10, 73,661 at different levels, that is, pre-primary, elementary, secondary (face-to face and distance modes), M. Ed. (face-to-face and distance modes), M. Ed. (part-time), C. P. Ed, B. P. Ed and M. P. Ed. This expansion has, naturally, taken a heavy toll on quality parameters like infrastructure, faculty learning resources and student profile.

Till January 2007, 31 Institute of Advanced Studies in Education (IASEs) and 104 Colleges of Teacher Education (CTEs) were sanctioned and all of these were functional. So far as the District Institute of Education and Training (DIETs) are concerned, for 599 districts in the country, 556 DIETs were sanctioned and of these 466 were functional. Thus as many as 90 DIETs were yet to become functional (Working Group Report on Elementary Education and Literacy, XI Five Year Plan, Jan 2007, 187-190). The main problem facing DIETs is non-availability of qualified faculty, presently the faculty appointed do not possess qualifications/experience in elementary teacher education. A good number of CTEs face faculty shortage, they spend more time on initial teacher education, and research, development and innovative activities are yet to take concrete shape and library facilities appear weak. The same is the case with IASEs. The capacity of both CTEs and IASEs in performing their mandated roles has come under serious questioning.

The larger reality of school teaching not being a preferred option among students and the dilution of emphasis on public investment in initial teacher education since the 1990s has led to large scale recruitment of unqualified and under-qualified persons as para teachers in the formal school system. Para teachers pose a far more serious challenge to the institution of the professional teacher. An attitude of resignation towards initial teacher education and piecemeal in-service training courses have become an integral part of state provisioning for elementary education. This has led to further degradation of the status of school teachers and diluted the identity of teacher as a professional. Major initiatives during the mid-1990s were focused on in-service training of teachers and this has accentuated the divide between pre-service and in-service teacher education. School teachers continue to be isolated from centres of higher learning and their professional development needs remain unaddressed.

On the positive side, with a view to achieving coordinated development of teacher education, the National Council for Teacher Education (NCTE) took up a number of initiatives during the last decade. It joined hands with the National Assessment and Accreditation Council (NAAC) to foster quality assurance and sustenance and with Distance Education Council (DEC) to ensure integrated development of in-service teacher education under the Open and Distance Learning (ODL) mode. It also entered into collaboration with the Rehabilitation Council of India in 2002 and later, in 2005, to develop curriculum on inclusive education and make it a part of general teacher education programmes.

The National Knowledge Commission (NKC) has observed that teachers are the single most important element of the school system, and the country is already facing a severe shortage of qualified and motivated school teachers at different levels. It is urgent to restore the dignity of school teaching as a profession and provide more incentives for qualified and committed teachers. Non-teaching official duties such as election-related responsibilities should not be allowed to interfere with the teaching process.

Forums that allow and encourage teachers to exchange ideas, information and experiences including a web-based portal should be developed. At the same time, there should be transparent systems for ensuring accountability of school teachers. As far as possible, teachers should be recruited to particular schools. The training of teachers is a major area of concern at present, since both pre-service and in-service training of school teachers is extremely inadequate and also poorly managed in most states. Pre-service training needs to be improved and differently regulated in both public and private institutions, while systems for in-service training require expansion and major reform that allows for greater flexibility.

III. Teacher Education Reform: Perspectives – Past and Present:

At the heart of teacher education is the question 'What value does teacher education add to the prospective teacher's ability to face challenges of facilitating the development of critical and creative students and subsequently adults?' Reform of teacher education has been one of the abiding concerns in the reports of major Education Commissions and Committees on education. The Education Commission (1964-66) dwelt at length on various issues related to teacher education. It recommended professionalization of teacher education, development of integrated programmes, comprehensive colleges of education and internship. The National Commission on Teachers (1983-85) recommended five-year integrated courses and internship. The National Policy on Education (NPE) (1986) recommended the overhaul of teacher education to impart it a professional orientation and referred to the same concerns voiced by the earlier Committees. Its recommendations led to the launch of the Centrally Sponsored Scheme of Teacher Education incorporating the establishment of DIETs, CTEs and IASEs. The NPE Review Committee (1992) and the National Advisory Committee on Curriculum Load (1993) have also drawn attention to the need for qualitative reform of teacher education and suggested various measures. The Review Committee recommended adoption of the internship model for teacher education involving a brief theoretical orientation followed by a 3 to 5 year period of supervised teaching in a school under mentor teachers. The Advisory Committee in its report learning without burden drew attention to the need for the involvement of teachers in curriculum and textbook preparation and training teachers in fostering learning through activity, discovery, observation and understanding. These policy recommendations have led to actions resulting in the development of National Curriculum Frameworks on Teacher Education and production of resource materials.

IV. Urgency of Reforming Teacher Education:

Teacher education as a whole needs urgent and comprehensive reform. There is a need to bring greater convergence between professional preparation and continuing professional development of teachers at all stages of schooling in terms of level, duration and structure.

Considering the complexity and significance of teaching as a professional practice, it is imperative that the entire enterprise of teacher education should be raised to a university level and that the duration and rigour of programmes should be appropriately enhanced.

Both at the elementary and the secondary levels, the initial teacher preparation is fraught with a number of problems, some of them common and some specific to the stage.

A. Elementary Teacher Education:

Initial training of elementary teachers continues to suffer from isolation, low profile and poor visibility in view of its being a non-degree programme administered by a government department as one among its other concerns. In professional discussions teacher education is viewed as a unitary undifferentiated category with B. Ed and D. Ed. providing the frame of reference. The special significance of initial primary teacher education (elementary education being a fundamental human right and its crucial significance to individual and national development) is overlooked and its concerns are subsumed under more general problems.

The Curriculum Frameworks thus far developed provide guidelines that are too general and do not address the stage specific training needs of elementary teachers. The Curriculum Framework (1998) was indeed a welcome exception. It may be the first to have provided stage–specific guidelines. The Curriculum Framework for Quality Teacher Education (1998) and Approach Paper for Elementary Teacher Education Curriculum Renewal in 2003 by the NCTE address these issues in greater detail. The establishment of DIETs has been the most important development in bringing the issue of elementary teacher education to the national stage.

There is a grave need to upgrade initial teacher education by enhancing the entry qualification and duration of training and make it equivalent to a degree programme and vest the management and control of elementary teacher education in a professional body of university faculty status. This is necessary as the plus 2 entry level does not even equip prospective teachers with the basic knowledge of subjects to teach at the elementary level, particularly classes 3 to 8.

Neither does the short duration of the course equip them with the necessary pedagogic knowledge for facilitating the learning of children, understanding their psycho social and learning needs. There are available a number of degree programs for the preparation of elementary teachers both within and outside the country which need to be looked at and adapted to Indian needs keeping the rigour of these programs intact. The Bachelor of Elementary Education (B. El. Ed.) program of the University of Delhi is a case in point.

Upgrading elementary teacher education calls for participatory curriculum planning involving all stakeholders, modular organization of curriculum in terms of critically engaging with theory and bringing practice within its perspective, greater curriculum time for skill learning and practice, a professional approach to training strategies and development of materials, and application of relevant alternatives, technological, curricular and organizational, in teacher education processes.

For accomplishing all this, there is a need for a longer duration of time for the programme, either a four-year integrated model at the Bachelor's degree level or a two-year second Bachelor's degree model. A transition to the new models will need to be done within a definite time frame – say five years – keeping in mind the time required for preparation of teacher educators as well.. However, the present two year D.Ed. model after twelve years of schooling may continue in the interim attempting to intensify the programme with the elements mentioned above and making it as meaningful and relevant as possible.

Another instance of neglect of elementary teacher education is the non-recognition of the need for specially qualified teacher educators in elementary education. It has been taken for granted that the existing arrangements for teacher preparation at different stages would do as well for teacher educators too, B. Ed for elementary teacher educator and M. Ed for secondary teacher educator. The logic that seems to operate here is that one's higher position in the educational hierarchy would entitle one to train others working at the lower levels irrespective of whether one possessed the relevant skills. Other than the activity of teaching children in elementary school, all other functions related to this sector of education are attended to by people who have been trained for and taught only at secondary level due to lack of appropriately trained personnel in elementary education. The difficulty is exacerbated by the absence of degree and post degree programmes in primary / elementary teacher education. At present, elementary teacher educators in their bid to upgrade their professional qualifications pursue M. Ed. The IASE brief includes the training of elementary teacher educators which they do by running the M. Ed programme of the concerned university. But the present M. Ed cannot meet the requirements of elementary teacher training as it is based on only secondary education requirements.

Education as an area of interdisciplinary knowledge is not merely an application of a few core disciplines, but a praxis and a context where theories and practical wisdom are generated continuously. It is important to facilitate development of a discourse in education through more purposive and deliberate focus in creating explanatory terms and vocabulary. And this process has to inform and be informed by teacher education. Since traditionally, it was secondary teacher education institutions that developed into university departments of education, elementary education and early childhood education have been neglected as distinct areas of knowledge with their own distinct concerns, concepts and methodological perspectives. It is important to strengthen all areas within education as distinct but integrated discourses through research as well as through documenting praxis in school settings as well as in field-level educational initiatives. This scattered corpus of experience and knowledge needs to be brought together to evolve a coherent vocabulary, researched and documented knowledge base and informed perspectives for all areas of education as well as education in its entirety.

B. Secondary Teacher Education:

There is also a need to critically review the secondary teacher education system. The one year second Bachelor's degree (B.Ed.) model seems to have outlived its relevance. With the proliferation of B.Ed. colleges, particularly with privatization and commercialization, B.Ed. programmes have become weak in both theory and practice. Even the few institutions which keep struggling to make this programme meaningful find it difficult to overcome the structural constraints that the short duration of the programme puts up. While a second

Bachelor's degree model may still be relevant, it is imperative that this needs strengthening in terms of both intensity, rigour and duration. It is desirable within a finite time frame that the existing one-year second Bachelor's (B. Ed.) degree programme is structurally transformed to a two-year one, with deeper and more protracted engagement with school-based experience and reflective and critical engagement with theory.

In the transitory phase, however, the existing one year programmes can work towards better utilization of the time available, greater emphasis on a school-based internship and emphasis on reflective practice based on perspectives on child, contemporary society, basic concepts of education and curricular and pedagogic alternatives.

C. Systemic Concerns in Teacher Education:

Even more serious than proliferation of sub-standard institutions is the current state of teacher education programmes. The programmes have come under severe criticism for not addressing the needs of contemporary Indian schools and not preparing teachers who can impart quality education in schools. Their design and practice is based on certain assumptions which impede the progress of ideas and professional and personal growth of the teacher.

They train teachers to adjust to a system in which education is seen as transmission of information. They take the school curriculum and text books as a 'given' and train teachers to adjust to the needs of the existing school system through fastidious planning of lessons in standardized formats and fulfilling the ritual of delivering the required number of lessons. The NCF 2005 has described the current concerns of teacher education as follows:

- Experiences in the practice of teacher education indicate that knowledge is treated as 'given', embedded in the curriculum and accepted without question; there is no engagement with the curriculum. Curriculum, syllabi and textbooks are never critically examined by the student teacher or the regular teacher
- Language proficiency of the teacher needs to be enhanced, but existing programmes do not recognize the centrality of language in the curriculum
- Teacher education programmes provide little scope for student teachers to reflect on their experiences.
- Disciplinary knowledge is viewed as independent of professional training in pedagogy
- Repeated 'practice' in the teaching of a specified number of isolated lessons is considered a sufficient condition for professional development
- It is assumed that links between learning theories and models and teaching methods are automatically formed in the understanding developed by student teachers
- There is no opportunity for teachers to examine their own biases and beliefs and reflect on their own experiences as part of classroom discourse and enquiry
- Theory courses have no clear articulation with practical work and ground realities
- The evaluation system followed in teacher education programmes is too information-oriented, excessively quantitative and lacks comprehensiveness. Apart from conceptual and pedagogical aspects the programme needs to develop certain attitudes, dispositions, habits and interests in a teacher. The present evaluation protocol has no place for evaluating them.

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Chapter 3

Structure of Secondary and Higher Secondary Education

3.1 Structure of Secondary and Higher Secondary Education in India:

The structure of school education refers to the ladder of education at school level. The ladder of education can be visualized from two perspectives. One academic and two, administrative. The academic structure has been given in detail in the next unit. However, it will be worthwhile for you to know the. academic structure in brief.

A. Academic Structure:

The Education Commission 1964-66 recommended the 10+2+3 pattern for adoption as a common pattern of education in the country. The 1968 National Policy on Education strongly recommended its implementation in all parts of the country. Finally, the 36th session of the Central Advisory Board of Education (CABE) held at Delhi on 10th September, 1972 passed a resolution stating that "it would be desirable to adopt a uniform pattern of education, i.e. 10+2+3 in all parts of the country by the end of Fifth Five Year Plan". It also asked the Ministry of Education to work out the details of cost. The Govt. subsequently appointed a National Level Committee on 10+2+3 educational structure. It identified the merits of the proposed structure and the Govt. accepted the 10+2+3 pattern of education.

Now, we have a common pattern of education throughout the country, consisting of pre-primary education, (named also as Kindergarten, Montessori Schools, Pre-basic schools Education and Play centres), elementary education ranging from standard I to standard VII or VIII and divided into lower-primary and upper-primary education, secondary education consisting of standards VII or VIII to X and the higher secondary education or +2 education of grades XI and XII.

Thus, up to +2 level, there is undiversified school education. Other forms of education have also developed so as to meet social demand. These include, among others, non-formal education, open school education, vocational education, and commercial education etc. To administer all these forms of school education, there is an organizational structure and some constitutional provisions. The organizational structure of school education is presented below.

B. The Organizational Structure:

Education as indicated above, is the joint responsibility of States and the Centre. The organizational structure has been developed to manage education at different levels i.e., Centre, State, District, Block and at village level.

3.1.1 The Central Level:

At the Central level, the Ministry of Human Resource Development (MHRD) is the main governmental agency. Earlier designated as the Ministry of Education, it was renamed as MHRD in 1985 in view of the variety of activities which it undertakes for human resource development. The structure of the Ministry is given in the next page.

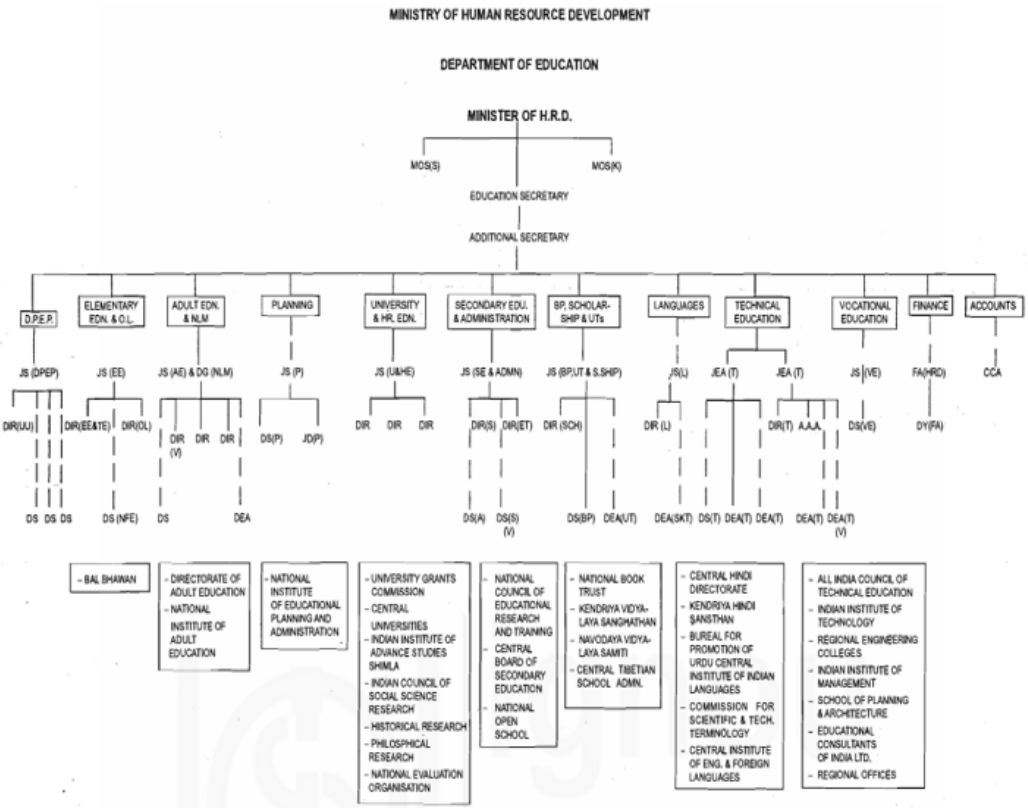
At the Central level, the Department of Education in the MHRD is responsible for all matters pertaining to education, including overall planning of programmes and providing guidance for their implementation. The MHRD, is headed by a Cabinet Minister of the Union Government.

The Department of Education, under the MHRD, is under the charge of a Minister of State who is advised at the official level by the Secretary to the Department, assisted by an additional secretary and Educational Advisor on academic and policy matters of Education. The Department of Education consists of several bureaus, each of which is headed by a Joint Secretary or Joint Educational Advisor.

These officials are assisted by Directors, Deputy Secretaries or Deputy Educational Advisors, who are the divisional heads. In terms, they are assisted by Under Secretaries or Assistant Educational Advisors, who have one or more sub-divisions under them. These divisions form part of different bureaus.

The Central Government has created a number of specialized institutions and organizations to help and advise the Government in the matter of formulation and implementation of policies and programmes in the field of education, particularly school education. The following is the list of such institutions and organizations which assist and advise the Central Government:

- Central Board of Secondary Education, New Delhi.
- Central Hindi Directorate, New Delhi.
- Central Institute of Indian Languages, Mysore.
- Central Institute of English and Foreign Languages, Hyderabad.
- Educational Consultants of India Ltd., New Delhi.
- Kendriya Vidyalaya Sangathana, New Delhi.
- National Council of Educational Research and Training, New Delhi.
- National Council of Teacher Education, New Delhi.
- National Institute of Adult Education, New Delhi.
- National Institute of Public Co-operation and Child Development, New Delhi.
- National Open School, New Delhi.
- Navodaya Vidyalaya Samiti, New Delhi.
- All India Council for Technical Education, New Delhi.
- University Grants Conunission, New Delhi.
- National Institute of Educational Planning and Administration, New Delhi.
- National Sports Authority of India, New Delhi.
- National Literacy Mission, New Delhi.



There are also some All India forums set up by the Central & Government to facilitate the process of educational development in the country and to strengthen relationship between the Central Government and State Governments in planning, implementation, and co-ordination of educational programmes. Such forums are the Central Advisory Board of Education (CABE), the State Education Ministers' Conference, the Conference of Education Secretaries and Planning Commission of the Government of India

3.1.2 The State Level:

At the State level, the position varies. In some States there is the State Ministry of Education headed by a Minister of Education which looks after the entire sector of education in the States. There might be separate ministries for different sectors such as Higher Education, Technical Education etc. The Minister or Ministers isolate member(s) of the State Legislative Assembly.

The Minister is responsible to the State Legislature. There are a number of Directorates which functions under the respective Ministries of Education. The Minister controls the formulation of educational policies, directs their execution and supervises their implementation. Other Ministers and departments control other types of education like technical, agricultural, medical, and industrial etc. The structure of school education at the state level has been presented in Figure 2.3 below.

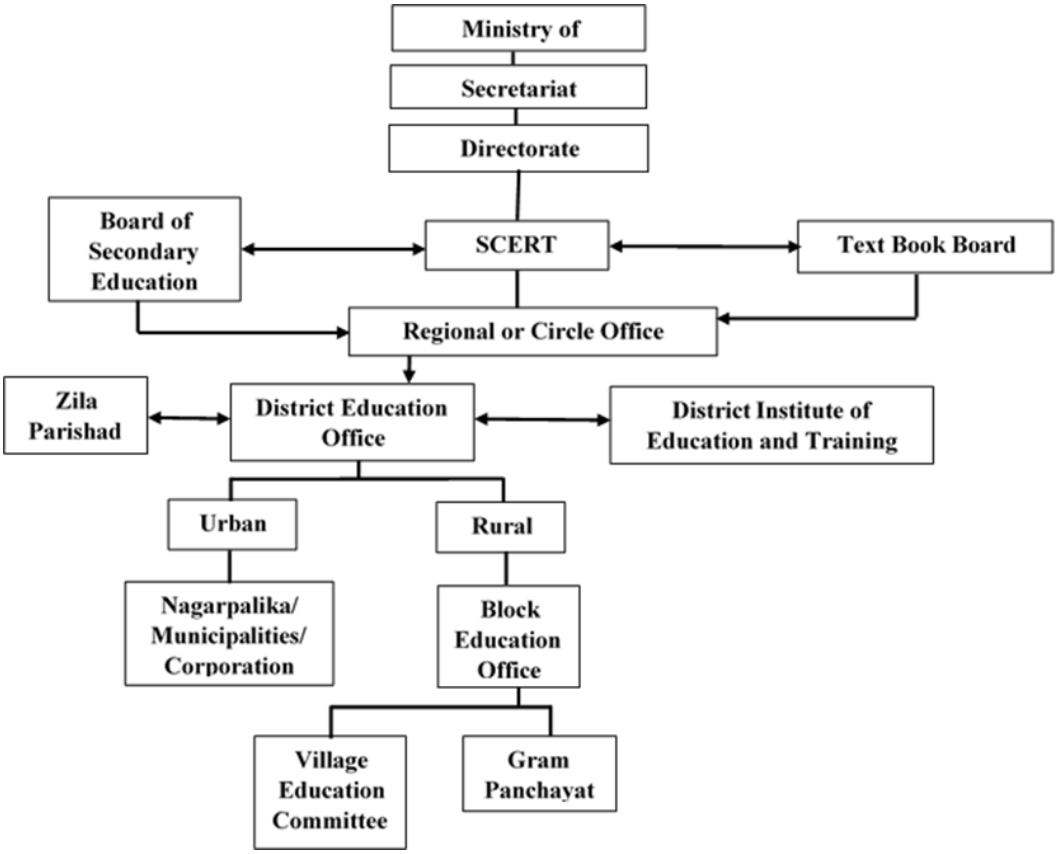


Figure 3.1: Structure of Education at State level

It can be seen from Figure 3.1 that under the Education Minister, there is a Secretariat. The Secretary is the administrative head of the Secretariat. He is directly responsible to the Minister for policy making and its execution at the school level. He generally belongs to the Indian Administrative Service and is assisted by Joint/Deputy/Under Secretaries. States have established Directorates of Education for different sectors such as Elementary, Secondary and Higher Secondary. In the Directorate, the Director is the executive head. She/he is assisted by Joint Directors, Deputy Directors, and Assistant Directors etc.

States are generally divided into educational circles on the basis of geographical proximity of the districts. Each circle is under the charge of a Circle Inspector or Circle Education Officer. He looks after schools in his/her circle with the help of District Education Officers/District Inspectors of States; Block Education Officers and School Inspectors are in charge of specific geographical regions. It is important to note that all States do not have the same' administrative structure. In some States, there is only a two-tier administrative set up viz., the State Department of Education and the Zonal or District Education Officer. In others there might be an intermediary set up between the Department and the District level arrangement. There are, therefore, variations in the administrative structure of school education at the State level.

3.2 Vision and Mission of Secondary and Higher Secondary Education:

The Vision and objectives of the Council is to provide basic education for elementary, middle, Secondary and Senior Secondary which includes 10th& 12th Class courses, vocational, technical and other paramedical courses. The mission of the Council is to achieve all round development and growth for the masses from Urban & Rural through education. And others are follows:

- To promote literacy and research and to work for the welfare of mankind without distinction of caste creed of religion and also for the poor especially those belonging to scheduled castes and backward classes by opening, running, helping and or assisting schools, colleges, Training Centers, vocational, Technical and Industrial Institutions or Centres, Orphanages, Dharmasala or Gurudwaras, Hospitals, Laboratories, Nursing Homes, Libraries Cultural, Social and Research Centres, and institutions and to carry out any other similar objects of public utility.
- To grant, pay or give scholarship, stipends prizes, rewards, allowances and other financial assistance or help in cash or kind to students with a view to help them in prosecuting their studies in schools, college, educational institutions, technical and medical institutions, art schools and other training, research, or educational works in India or abroad.
- To promote and propagate the case of literacy and welfare of society in general with special emphasis on education and health care of the underprivileged, poor children and women.
- To receive moneys and donations, any type of financial assistance, from any individual institutions, trust corporate etc. to fulfill the aims and objects of the society.
- To supervise the schools run by the Council or affiliated to the Council.
- To direct the schools to upload, keep and maintain the standard of education and to obey the conditions imposed by the Educational Authorities of the state and the Centre from time to time.
- To DE-affiliate the schools which fails to maintain the standard of education as directed by the Council.
- To provide the basis amenities, financial aids to the schools affiliated, run or controlled by the Council and to act as an supervisory authority.

3.3 Decentralization of Secondary and Higher Secondary Education:

3.3.1 Decentralisation:

Decentralisation means transfer of power, responsibility and authority to the people at large. It is diffusion of power into the hands of people. India being a land of villages, our parliamentary democracy must reach the rural masses. Our democratic edifice is to be built on rural foundations only. The whole outlook of rural populace is to be revolutionized by the concept of Decentralisation so that leadership grows from below. The underlying philosophy of Decentralisation is to make our democracy which grows from roots and which is not imposed from above. The reason for the failure of certain democracies was obvious from the fact that their foundations were not firm but shaky. That means, democracy was not working properly in practice.

Democratic Decentralisation of educational administration means that schools must become the concern of the community if they are to be organs of nation's life. Our educational institutions should be of the community, should be governed by the community and should be managed by the community. Decentralisation aims at facilitation. The system of education must provide for the interplay of forces from village school to the university. Ignorance can be eliminated by pooling of our educational resources, over a network of fabric woven upwards from village school as the base.

Our educational superstructure should have as its basis the village school. Democratic Decentralisation of education should run on a parallel line along with Decentralisation of other aspects of life of the nation. The school is visualized to be the third arm of the triumvirate on which rests our growing democracy and the socialist society. The village school, thus, forms the third arm of the village.

Article 40 of the constitution of India reads: "The states are directed to take steps to organize village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government."

3.3.2 Objective of Decentralisation:

Shri S. K. Dey says, Panchayati Raj as we now visualize will therefore mean progressive increase in competence from ground upwards and corresponding transfer of responsibilities from the centre to the ground.

Devolution of authority, progressive delegation of powers and democratization of administration all along from the centre to the family are the ultimate objectives. Broadly speaking, the Lok Sabha should be the cumulative reflection of Grama Sabha.

a. System of Panchayat Raj:

The Balwant Rai Mehta Study Team on Community Development programmes had recommended a three-tier system of Panchayat Raj. It is of pyramidal structure, Village Panchayat being at the bottom, Zilla Parishad at the top, while Panchayati Samithi is to serve as the intermediary agency. The report recommends: "So long as we don't discover or create representative and democratic institution which will supply the local interest, supervision and care necessary to ensure expenditure of money upon local objects, conforms with the needs and wishes of the localities, invest it with adequate power and assign to it appropriate finances, we will never be able to evoke local interest and excite local interest in the field of development.

b. The Pyramidal Structure of the Three- Tier System of Panchayat Raj:

- The pattern of Panchayat Raj administration is a three-tier system consisting of
- Village Panchayat at the village level
- Panchayat Samithi at the block level
- Zilla Parishad at the district level

3.3.3 Importance of Decentralisation:

The implications of democratic decentralization of educational administration expounded by several educationists reveal the importance of this reform. They are reported below

- The self-governing democratic units stand as a guarantee for democracy by providing popular protection and by developing democratic practices in education and by testing the democratic process.
- Democratic decentralization facilitates popular participation in the institutional activities and in gaining the popular confidence and support for their efficient functioning.
- Democratic decentralization of educational organisation is meant to safeguard education function from being misused through popular control.
- The task of decentralized educational administrative machinery is to bridge the gap between the State and the Community and help in better implementation of plans of educational development and schematic operations and so on

3.3.4 Pattern of Democratic Decentralisation of Educational Administration:

Democratic decentralization of education is not of recent origin in the sense that local bodies were assigned the task of administration of education even during the British regime from the last century itself. Local bodies were associated with administration of Primary Education. The district boards and Municipal Boards were administering both Secondary and Primary Education in the past.

In the post independent era, the Balwant Rai Mehta Committee had envisaged the system of Panchayat Raj as a means of democratic decentralization. The entire administration for the purpose of development was to be handed over to this three tier system, namely the village panchayat, the block panchayat Samithi and Zilla Parishad.

Almost all the states of India are adopting more or less the same pattern, with perhaps minor changes in the nomenclature used. In all states the panchayat Samithi are statutory executive corporate bodies except in the state of ammu and Kashmir where they are purely advisory.

a. Panchayat Samithis and Education:

Consequent on adoption of democratic decentralization in the form of Panchayat Raj, the responsibility of Primary education has been shifted to Panchayat samithis. By making Panchayat samithis block as a unit of administration of primary education, the state government intends to bring the administration and primary education which almost constitutes mass education, closer to the people and ensures their direct interest and participation in it.

Education function of the Panchayat Samithis is carried out with the help of the standing committees for education. The act mentions the standing committees for education in the following way. For every Panchayat Samithi there shall be a standing committee

respectively for Education including social education, Medical relief, and health, sanitation including rural water supply and drainage and relief of distress on grave emergencies.

It is stated that for standing committees under clause (iii) at least one woman and one scheduled caste representative should be the members. The standing committee for education assists the Panchayat Samithis relating to education. Maintenance and expansion of elementary and basic schools and in particular:

- Management of government and taken over Aided elementary and higher elementary schools.
- Establishment of Adult education centres and Adult Literacy centres.
- Provision and improvement of accommodation for schools with people's participation.
- Taking of such action as may be necessary for the promotion of education for all children until they complete the age of fourteen years.
- Among the administrative personnel of Panchayat Samithis, the Extension Officer, Education is concerned with the Education Wing of the Panchayat Samithi. He carries out specific functions like inspection of Primary Educational Institutions and looks to the improvement of their educational standards.

b. Zilla Parishad and Education:

With respect to education, the Zilla Parishads are concerned with the establishment, maintenance and expansion of secondary schools mainly. Educational function of the Zilla Parishad is carried out through the assistance of the standing committee for education. Standing Committee in the Zilla Parishad Administration is related to education, medical and public health. The standing committee is responsible for the improvement of education.

3.3.5 Advantages and Shortcomings of Decentralisation of Education:

Advantages:

In the field of education, a further safeguard is provided by the degree of decentralization introduced.

- It enables adjusting the institutions to the local needs and environment. Thus the schools have become the reservoirs irrigating the fertile soil. They become the true replicas of community life.
- It facilitated community leaders to accept the responsibility and share to one desirable extent in the educational programmes and implementation of educational plan.
- Establishment of Panchayat Raj, in general, had helped to provide ample opportunity for politisation of the rural people.
- It is effecting necessary sociological, political and economic changes in the rural sector and a new vitality is pulsating in the rural areas. It has brought about the awareness of the great weapon in their hands. i.e. vote.

Enforcing decentralization and democratization before sufficiently educating people as to the democratic value and practices is feared to result in disastrous consequence.

- The danger of favourism, partisan spirit and nepotism creeping into village life has been recognized by some leaders.
- Age old rivalries, the rigid hierarchical behaviour of village community and caste localities may tend to render decentralization as sense formalism.
- Over emphasis on devolution of power to the matter units is considered to be not so desirable for the development of Indian nationhood by same.

However, democratic decentralization has come to stay as an accepted national policy. Constant evolution is essential to appraise popular enthusiasm and participation. Absence of political rivalries in the Panchayat elections is a chief characteristic which is worth noting.

In addition, unanimity of elections was found to be another good feature in majority of villages. These features will serve us as indications which may lead to party less government as visualized by some of our Sarvodaya leaders.

There may be some shortcomings in the early stages of its implementation which should not lead us to the short sightedness of rejecting the scheme as a whole. Defects are to be rectified and limitations are to be overcome by making the system more meaningful, practical and adaptable from time to time.

3.3.6 Educational Implications:

Decentralization in education leads to improvement in the system by involving members at ground level. There is need to define clearly the powers and responsibilities of the educational administrators and the non-official functionaries. Teachers should be kept away from politics and occupational security should be provided to them. The Deputy Secretaries should be re- designated as the Educational Secretaries of the Zilla Parishads and should be endowed with adequate powers. The extension officers (education) should be placed under the control of the Education Secretaries. Educational Standing Committees should be formed as the advisory bodies of education at the district level to help development of education in the district. The powers of appointment, transfers, control and discipline should be vested in the District Education Officers only. Non –Official functionaries should be given administrative training for a short time. District Selection Committees should be formed including the District Education Officer, Zilla Parishad Chairman and the Z.P. Education Secretary to look to recruitment and training of the teachers.

3.4 12th Five -Year Plans -Objectives, Key Issues and Focus:

Education is the most important lever for social, economic and political transformation. A well educated population, equipped with the relevant knowledge, attitudes and skills is essential for economic and social development in the twenty-first century. Education is the most potent tool for socioeconomic mobility and a key instrument for building an equitable and just society. Education provides skills and competencies for economic well-being.

Education strengthens democracy by imparting to citizens the tools needed to fully participate in the governance process. Education also acts as an integrative force in society, imparting values that foster social cohesion and national identity. Recognizing the importance of education in national development, the Twelfth Plan places an unprecedented focus on the expansion of education, on significantly improving the quality of education imparted and on ensuring that educational opportunities are available to all segments of the society.

Recognizing the importance of education, public spending on education increased rapidly during the Eleventh Plan period. Education expenditure as a percentage of gross domestic product (GDP) rose from 3.3 per cent in 2004–05 to over 4 per cent in 2011–12. Per capita public expenditure on education increased from `888 in 2004–05 to `2,985 in 2011–12. The bulk of public spending on education is incurred by the State Governments and their spending grew at a robust rate of 19.6 per cent per year during the Eleventh Plan. Central spending on education increased even faster at 25 per cent per year during the same period. Aggregate public spending on education during the Eleventh Plan period is estimated at `12, 44,797 crore for both the Centre and States taken together. Of this, 35 per cent was accounted for by Plan expenditure and 65 per cent by non-Plan expenditure. About 43 per cent of the public expenditure on education was incurred for elementary education, 25 per cent for secondary education and the balance 32 per cent for higher education. About half of the Central Government's expenditure was incurred for higher education and the remaining for elementary (39 per cent) and secondary (12 per cent) education. In the State sector, about 75 per cent of education expenditure is for school education, of which 44 per cent is on elementary education and 30 per cent on secondary education.

With a dramatic growth in elementary education enrolments and improvements in retention and transition rates in recent years, particularly amongst the more disadvantaged groups, there is an increasing pressure on the secondary schools to admit more students. With the enforcement of RTE Act and further improvement in retention and transition rates, demand for secondary schooling will grow rapidly in the coming years. Meeting this demand is critical for three reasons. First, the secondary education fulfils large manpower needs of the semi-organized and the organized sectors of the economy. Second, it is the supply chain for higher education. And, finally, it caters to the needs of teachers for primary schooling. Low participation rates and poor quality at the secondary stage are a bottleneck in improving both the higher education participation and the schooling at the elementary stage. Further, there are both social and economic benefits of secondary schooling. While there are clear improvements in health, gender equality and living conditions with secondary education, investments in secondary schooling have high marginal rates of return. Thus, the country needs to move towards universalization of opportunity to attend secondary schooling of adequate quality. With enrolment in elementary education reaching near universal levels, there would be an opportunity to move towards universal access to secondary education. The current GER for the combined secondary and senior secondary stages (Classes IX–XII) in 2009–10 at about 50 per cent is woefully low. Thus, the capacity of the secondary schooling system has to be expanded significantly. There are very large inequalities in access to secondary education, by income, gender, social group and geography. The average quality of secondary education is very low. Thus, urgent efforts are needed to improve its quality. The challenge is to dramatically improve access, equity and quality of secondary education simultaneously.

3.4.1 Objectives:

The Twelfth Plan's objective for secondary education is to make quality education available, accessible and affordable to the target population in the age group of 14–18 years. Given this general objective, the following targets (see Box 21.4 below) will need to be achieved during the Plan period.

- Achieve near-universal enrolment in secondary education, with the GER exceeding 90 per cent by 2017;
- Raise the GER at the higher secondary level to 65 per cent by 2017;
- Reduce Dropout rate to less than 25 per cent by 2017;
- Ensure quality secondary education with relevant skills including basic competency in mathematics, science, languages and communication;
- Implement common curricula and syllabi of nationally acceptable standards for Science, Maths and English in all schools in the country.
- Develop life skills including skills of critical and constructive thinking, use of ICT, organisation and leadership, and community services.

3.4.2 Key Issues:

a. Enrolments:

GERs at the secondary (Class IX–X) and senior secondary (Class XI– XII) levels are 62.7 per cent and 35.9 per cent, respectively, leading to a combined GER for Class IX–XII at a considerably low 49.3 per cent (see Table 21.3). The significant dip in GERs from secondary to senior secondary level for all categories is driven by a number of factors including general lack of access, paucity of public schools, high cost of private senior secondary education and poor quality of education, along with the very important factor of high opportunity cost of deferred entry into the workforce. India's GER at the secondary level is close to that of the average for all developing countries (63 per cent), but substantially lower than that of emerging economies like China, Indonesia, Thailand and Brazil (see Figure 3.2).

Table 3.1: GER for Secondary education by Social groups (2009-10)

	SCs	STs	Non SCs/STs	Overall
Secondary Level				
Boys	71.	54.24	67.02	66.65
Girls	63.50	44.22	58.97	58.45
Total	**67.58**	**49.41**	**63.13**	**62.71**
Senior Secondary Level				

	SCs	STs	Non SCs/STs	Overall
Boys	37.42	31.36	39.17	38.31
Girls	33.48	22.32	34.39	33.31
Total	**35.60**	**26.91**	**36.88**	**35.92**
Both Secondary and Senior Secondary Level				
Boys	54.52	43.45	52.86	52.39
Girls	48.86	33.68	46.54	45.86
Total	**51.88**	**38.70**	**49.82**	**49.26**

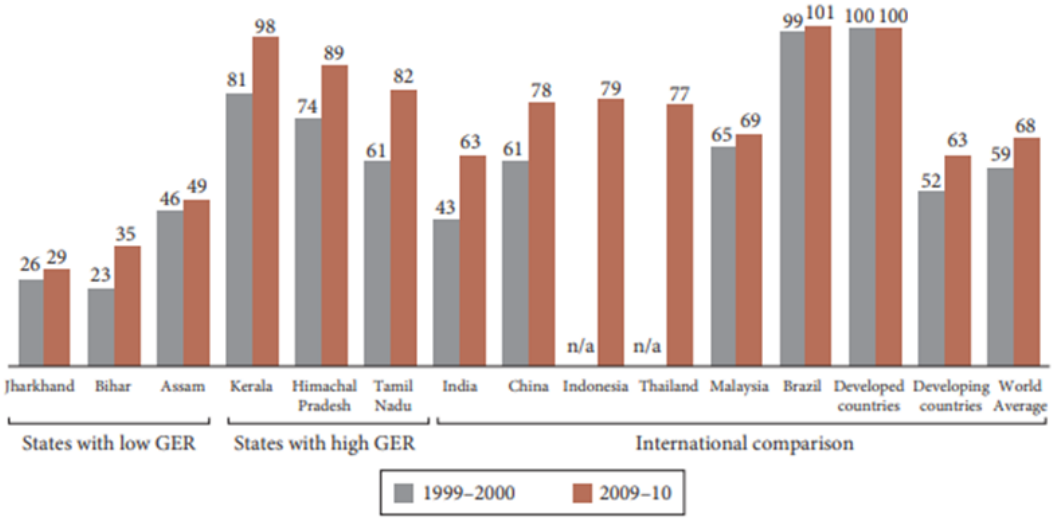


Figure 3.2: GER for Secondary Education: By States/Select Countries (High/Low GER States and International Comparisons)

Source: Selected Education Statistics, Ministry of HRD, 2009-10, EFA-GMR-2011 and UIS

Enrolments of the SCs-both boys and girls- have improved significantly in recent years and now compares favourably with the non-SC/scheduled tribe categories. This has been possible with government support for hostels, scholarships and other forms of financial aid combined with increased access to secondary education, particularly in urban and semi-urban slum areas.

However, despite similar efforts, the GER for STs continues to be significantly low at the secondary level. This may be attributed to low transition rates from the elementary to the secondary level as well as access related challenges in disadvantaged locations-both of which are accentuated for girls.

Within the relatively low GER at the secondary level, there are wide regional and inter-State variations. Among the major States, secondary level GERs are as low as 29 per cent in Jharkhand and 35 per cent in Bihar and as high as 89 per cent in Himachal Pradesh and 98 per cent in Kerala, as compared to the national level (62.7 per cent). At the Senior Secondary level, the GER ranges from being very low at 6.5 per cent in Jharkhand and 13 per cent in Assam and quite high at 60 per cent in Haryana and 69 per cent in Himachal Pradesh. In addition, in some States like Rajasthan and MP, the gender gap in GER is as wide as 20 per cent.

In India, only 5 per cent of the population of 19–24 age group has acquired some sort of skills through vocational education, while the corresponding figure for Korea is as high as 96 per cent. The National Knowledge Commission has recommended expansion and re-designing of vocational education and improvement of its quality. The mid-term appraisal of the Eleventh Plan emphasized the need for curriculum revision in vocational education, appropriate certification by accrediting agencies, horizontal and vertical mobility with multiple entry/exit possibilities and linkage with industry for employment opportunities. The National Skill Development Mission has also recognized the demand for employment-oriented vocational education programmes with provision for hands-on training. In order to reap the benefits of the demographic dividend, it is critical to align vocational education within the composite framework of secondary schooling. Thus, more efforts are needed for vocational education at the secondary stage.

b. Government Spending:

Public expenditure on secondary education has increased from `35,806 crore in 2007–08 to 94,183 crore in 2011–12, leading to an increase in its share as a percentage of GDP from 0.78 per cent to 1.05 per cent. Per capita expenditure on secondary education has gone up from 315 to 784 during this period. The Central Government's expenditure has gone up from 2,578 crore in 2007–08 to 13,278 crore in 2011–12, a five-fold increase. There is significant private expenditure as well. The average private expenditure on secondary education in private schools is as high as 893 per month as compared to only 275 per month in Government Schools.11 This difference is primarily due to high tuition fees in private schools. During the Eleventh Plan, the Central Plan outlay for secondary education was 54,945 crore. Against this, an amount of `17,723 crore (or 32.26 per cent of the outlay) was actually spent. Elaborate consultation process with stakeholders including the State Governments preceded launch of the new schemes, resulting in sub-optimal utilization of planned resources in the first three years of implementation. However, in the last two years of the Eleventh Plan period, the Ministry was fully geared to implement schemes rapidly, but only limited resources were made available

3.4.3 Focus:

a. Consolidation and Expansion:

Strategies for universal secondary education must be based on population projection of the secondary education age group. There have been some projection exercises for some States on secondary age group population and demand for secondary education depending upon

population growth rate and rate of transition from elementary to secondary education corrected by dropout factor. Some States are already stagnating, some will reach the peak by 2016–17, some will stabilize only by 2025. Micro planning for secondary education is hence necessary with proper future projections. Each State may devise a 10-year perspective plan for school education that would cover the period till the end of the Fourteenth Plan.

Enrolment in more than one-third of the secondary schools in the country is less than 80 students per school. The numbers of such schools are about 40,000 and 16,000 in rural and urban areas, respectively. About one-half of the rural schools are government funded. Secondary and higher secondary schools must be viable and large enough to benefit from investment on quality. The fact is that it is much harder to have good-quality education in very small schools with few teachers. The consolidation in secondary education will be achieved by (i) creating more and more composite schools from grades 1 to 12; (ii) upgrading primary schools into elementary schools in phases to fulfil the commitments of RTE-universal elementary education; (iii) upgrading every third elementary school to a secondary school; (iv) upgrading every fourth Secondary School to a Higher Secondary School by adding additional classrooms, laboratories, strengthening libraries and sports and games facilities and teachers. The cost of additional classrooms and facilities will be far less than establishing new schools. New schools will be set up only in un-served areas. Provision of transport, especially in rural areas, will be made for schools to avoid school dropout, especially among girls and economically weaker sections due to non-availability of schools within 'walking distance'. The transport facility will be more cost effective and socially acceptable than setting up hostels. Nonetheless, hostel facilities would be provided in these schools on a priority basis in order to make them operationally viable in terms of teacher deployment and provision of other infrastructure facilities. In the unaided private sector, there are about 25,000 schools operating with enrolments of less than 80 pupils, per school. Efforts are required to utilize the surplus intake capacity in these schools to meet additional demand for secondary education. There are about 14,000 such schools located in rural areas. These schools may also be incentivized to cater to the educational needs of disadvantaged groups in their neighbourhood.

Several institutions of higher education have vast tracts of unutilized or underutilized land. Model schools/JNVs/KVs could be set up in such places. The public sector should also concentrate on opening new secondary schools in un-served and difficult areas where availability of land is not a major constraint. Second shift operations in schools in thickly populated areas and urban slums should also be evaluated. Overall, the strategy should be on consolidation by better use of existing land, infrastructure and physical facilities through resource-mapping and leveraging private and non-governmental expertise and resources to improve the quality of education.

b. Facilitating Private Growth:

The role of the private sector in secondary schooling can be further strengthened through right policies, proper regulation, innovative public– private partnerships and a variety of demand-side financing measures that improve accountability and enhance parental choice, thereby achieving all three objectives of access, quality and equity in secondary education. This would require easing of entry barriers with dismantling of multiple licensing systems and procedures and the State Governments should revisit norms including requirement of

land for setting up institutions. Many States have school land norms laid down in the 1960s and 1970s which need to be immediately revisited. A single window approach needs to be adopted to facilitate barrier free entry of private institutions including online monitoring of application status for setting up of new schools. Suitable taxation and land policies are needed to encourage expansion of secondary schools in the private sector, along with concessional loans for NGOs, trusts and registered societies for building new schools or improving the infrastructure of existing schools. Most of the publicly funded schools that have been in existence for some time have large open spaces, particularly those in rural areas. Most of these old school buildings require repair and up gradation and, in several cases, reconstruction. SSA and RMSA do not fund the reconstruction of old schools.

Some portion of the land area could be evaluated to be leased out to private schools under contractual obligation of the lessor for reconstruction of existing government school building. The contractual agreement should provide for access of government school children to laboratory, library and common playfield facilities of the private partner in the same campus.

Many schools in the country that were initially started as private schools through local initiatives have become government grant-in-aid schools. This system encourages local participation and fills the gap that exists in interior areas. Devising a good regulatory mechanism designed to ensure quality will be a preferable option over governments setting up their own schools and operating with very low levels of enrolments. Encouraging private unaided schools would cater only to the population which can pay, unless there is a policy of cross subsidization of fees so that certain percentage of children from the poorer sections of the society can also be accommodated for free or at subsidised tuition fees. There is no ceiling on their intake capacity but resource constraints could come in the way of expansion. Institutional funding for expansion of school infrastructure is essential for accelerated growth of secondary education. This is also an important opportunity which should be seized to link new funding to the performance of institutions in achieving certain objectives, such as graduation of students, academic improvement and retention of disadvantaged groups.

c. Improving Quality:

No recent, reliable, large-scale learning assessments at the secondary level exist. However, small-scale standardised assessments of student achievement in mathematics at the secondary and senior secondary level in two States (Rajasthan and Odisha) suggest that the quality of instruction and learning is very low at the secondary level. There are multiple factors for low levels of learning. Schools play a very important role in determining nearly half of student achievement. Thus, in the Twelfth Plan, all secondary and higher secondary schools would be made to conform to minimum standards in facilities and quality. This will require a greater role for the Central Government in supporting the States, particularly those lagging in secondary education. The focus should be on building the capacity of schools in terms of knowledge and skills, autonomy and accountability structures, and allocation of untied grants for undertaking school improvement measures for imparting quality education. Local capacities would be strengthened at the school level giving them the ability to ‘think and innovate’.

In secondary schooling, there is too much emphasis on rote learning and insufficient development of conceptual understanding and higher order thinking skills. There is insufficient quality assurance and accountability mechanisms in place, while capacity and quality of pre-service and in-service training of teachers is low. The issues of curriculum, examinations reforms, school leadership, assessment and accreditation would also have to be addressed.

d. Teacher and Training:

Teacher training for secondary education was launched in the Eleventh Plan but the approach so far has been mechanical and limited to training teachers to help students score high marks in national board exams so as to raise school averages with very little focus on developing thinking, application skills, attitudes and values. The Twelfth Plan will promote professional cadre development in education and will empower educators to develop effective tools for promoting and gauging creative problem solving and ideation in the classroom setting. Research scholars in the field of education in Universities/Colleges should be brought in to conduct seminars, classes and tutorials and should be compensated over and above their fellowships. Significant shortages of secondary school teachers exist, especially in the critical subjects of mathematics, science and foreign languages. A major recruitment effort is needed. Curricular reform can also promote more efficient use of teachers. Moreover, new and flexible ways of encouraging people to come into or return to the teaching profession are needed; with an emphasis on identifying those with relevant competencies rather than those who have certain qualifications. National Mission on Teachers and Teaching should address issues of teachers at the secondary stage in a comprehensive manner.

e. Renewed Focus on Vocational Education:

Recognising the fact that younger children learn and acquire skills faster, skills training of elementary nature, for example, manipulating simple instruments at the elementary level, and pre-vocational courses as an alternative to work education would be offered in Class IX and X. Students who take these pre-vocational options could be encouraged and facilitated to take up advanced vocational subjects at the higher secondary level. In addition, vertical mobility options for students taking vocational courses should be available at the undergraduate and postgraduate level. For high-quality vocational education at school level to evolve and grow in the country, there is a need to train and equip teachers on a continuous basis with the latest skills and pedagogy techniques in vocational education. The vocational curriculum needs to be integrated and closely aligned with the academic curriculum and should contain modules on various generic and specific vocational skills for which industry should be involved. There should be an emphasis on development of generic and multiple skills so that trainees/students may respond to changes in technology and market demands. The revised scheme of vocationalisation of secondary education should be revisited based on the pilots that have been undertaken to test and to ensure that it is aligned with the new qualifications framework and industry-led sector skill councils, so that vocationalisation does not become an expensive dead end for students. Given the different economic contexts across the country, system of monitoring and evaluation of the scheme must be strengthened.

f. Use of Technology in Education:

Most of the secondary schools have limited availability of computer facilities. This constrains the students from acquiring ICT-related skills essential in the knowledge economy and limits teachers' ability to upgrade their subject-matter knowledge and students' ability to access essential learning materials. ICT can potentially make significant difference in improving quality. The National Policy of ICT in School Education envisions and provides for the development of a holistic framework of ICT support in the school system. Mission Mode Project (MMP) on School Education is now under the National e-Governance Plan (NeGP). This would enable comprehensive technology enablement of the school education sector. More specifically, this would cover:

- Developing ICT skills of all heads of schools, teachers, non-teaching staff and students;
- Creating a repository of quality-assured digital contents in English, Hindi and regional languages in all subjects especially in science and mathematics;
- Training and encouraging teachers to develop and use e-content;
- Creating provisions for ICT in classrooms or portable facilities like a netbook/laptop/iPad and a projector with rechargeable battery, and implement ICT-integrated education;
- Enabling provision of ICT-integrated examination and e-governance at the institutional and systemic level including setting up of education portal(s).

The MMP also envisions extensive use of technology to ensure delivery of services to students, teachers, autonomous institutions and partners on an 'anytime-anywhere' basis by leveraging the Common Service Centres (CSC) established up to the village level across the country.

This along with the policy on ICT in School Education will enable a holistic and coordinated attempt to optimally use and leverage technology to achieve quality and efficiency in all of the interventions under various schemes.

There would be special focus on Aadhaar linkage of teachers and students databases with a view to remove ghosts, fakes, duplicates and cleaning up databases. This linkage coupled with effective analytics can help in addressing accountability, traceability and measurement-related challenges. It could also be used for tracking students and teachers attendance, tracking deployment, training programme attended by teachers, their skills/capability areas and so on.

Using this targeted deployment plan, skill development programme could be developed. Tagging records of students with those of teachers can help build accountability of teachers. In long run, this may also provide pointers to interventions (made at teachers' improvement areas) that have had a higher impact on improving learning outcomes.

Aadhaar seeding would be used in tackling scholarship funds misuse. Recently, Andhra Pradesh has used it to identify fake student enrolments, same student enrolments in multiple colleges/courses, same faculty teaching in a large number of institutions. Aadhaar-enabled payment system could be used for transferring and managing scholarship payments.

3.5 Constitutional Provisions, Right to Education and its Implications:

3.5.1 Introduction:

- The Constitution of India came into force on 26 January 1950. On the same day the people of India faithfully dedicated their constitution to themselves,
- With the words."We, the people of India, having solemnly resolved to constitute India, into sovereign democratic republic and to secure to all its citizens".
- Justice - social, economic and political.
- Liberty - of thought, expression, belief, faith and worship.
- Equality – of status and opportunity and to promote them all fraternity assuring the dignity of the individual and the unity of the nation.
- In 1947, education in India was conducted according to the educational system introduced by the British Government.
- Education is considered as an instrument of peaceful revolution in different areas of life of the individual and society.
- Education is the most important and dominating force of human life has well been addressed by framers of our constitution under fundamental rights and directive principles of state policy, various provisions have made for education in the constitution itself.

3.5.2 Constitutional Provisions:

The following provisions have been made in our constitution regarding the right pertaining to education.

A. Article 14: Right to Equality in Ceneral:

- This provisions has been made by the Supreme Court just in order to reduce subjectivity and discrimination in matters of admission and appointments.
- For admission to government colleges marks fixed for the interview should not exceed 15% of the total marks and for the appointment to government services marks fixed for interview should not be more than 25% of the total marks.
- Private educational bodies receiving grants from the government are obliged to act fairly in accordance with the fundamental rights as well as the rules and regulations framed by the government.
- A professional college shall be permitted to be established and administered only by a society registered under the societies registration act of 1860 or by a public trust or charitable trust.

B. Article 15(3): Education of Women:

- Special provisions have been made for women, socially and educationally backward classes of citizens (SCs and STs) and other backward classes.
- The reservation of seats in admission or employment special scholarship should be given to these people.

- For SCs and STs study in private institutions, their total fees are paid by the government.

C. Article 19: Right to Freedom:

According to this article, all citizens shall have the right,

- 19(a) – to freedom of speech and expression.
- 19(b) – to assemble peacefully without arms.
- 19(c) – to form associations and unions.
- 19(d) – to move freely throughout the territory if India.
- 19(e) – to reside and settle in any part of the country.
- 19(f) – to practice and carry on any profession, occupation, trade or business.

All these freedoms given in this concerned indirectly to the process of education.

D. Article 21: Right to Life and Personal Liberty:

In the light of this article several other articles like article 45 and 46 along with 21 of constitution were amended to make education a seventh fundamental right in 2001.

So every child has fundamental right to get free and compulsory education up to the age of 14 years.

E. Article 24: Prohibition of Emplotment of Children:

- According to this article, no child below the age 14 years shall be employed to work in any factory.
- After including right to education into the category of fundamental rights, children are now given full facilities to take admission in school and receive free education there.

F. Article 28: Religious Education:

Article 28 maintains three types of educational institutions:

- Educational institutions wholly maintained out of state fund. In such institutions no religious instructions shall be provided. It must not impart education of any religion.
- Educational institutions administered by the state but established by a trust- these are also government institutions. Here the religious instruction can be given if trust or managing committee desires to do so. But Hindus cannot be compelled to study Quran and Muslims cannot be forced to study Geetha and so on. The condition in part (a) shall not apply to any educational institution administered by state, but the institution administered by a trust or any religious body can carried out any religious education.
- Educational institutions recognized by the state or receiving aid out of the state fund: here no person shall be required to take part in any religious institutions or to attend any religious worship.

G. Article 29(2):

According to this article no citizen will be denied admission into any educational institution maintained or aided by the state on the basis of caste, creed, language, race or region.

H. Article 30(1): The Right of the Minorities to Setup and Administer Educational Institutions:

According to this article, linguistic or religious minorities have right to establish and administer educational institutions of their own choice to preserve their culture or language, state will also grant them aids to run these institutions smoothly.

Minorities are those which are less than 50% of the population of a state and from a distinct and identifiable group of citizens. No educational institution will be entitled to refuse admission to any child on the basis of religion, creed or language.

I. Article 30(2):

According to this article, the minority institutions receive grants from the government are not discriminated on the basis of their particular religion, language or culture.

J. Article 41:

The article provides right to secure the right to work, education and public assistance in case of unemployment, old age sickness etc.

K. Article 45: Provision: of Free and Compulsory Education:

For Children:

- It is provided that the state shall endeavor to provide free and compulsory education to all children up to the age of 14 years, within ten years from the date of adoption of the constitution.
- This article expresses the resolve of the people of India to make provisions for free and universal education.

L. Article 46:

Promoting the Educational and Economic Interests of the SCs, STs and Other Weaker Sections:

- This constitution states that the state will protect and promote with special care, the educational and economic interest of the weaker sections, particularly the Sc's, and St's and also protect them against social injustices and exploitation of all kinds.
- According to this article, the educational and economic development depends upon the will of the state.

M. Article 337:

Special provision with respect to educational grants for the benefit of Anglo- Indian community.

N. Article 350 (A): Facilities for Instruction in Mother Tongue at Primary Stage:

- This article advises, that education be imparted in the mother tongue.
- For the proper performance of this article it has been stated in Article 350 (b) that
- There will be special officers appointed for linguistic minorities.
- It will be the duty of the special officers to conduct research or studies into all subjects and to send suggestions to president regarding these subjects.

Thus it is essential that our political leaders, educational planners and administrators make their plans according to the institutions explicit and implicit to the constitutions so that the constitution may move towards progress.

3.5.3 Right to Education and its Implications:

a. RTE ACT, 2009:

The Right of Children to Free and Compulsory Education Act, (RTE Act, 2009) describes the modalities of the importance of free and compulsory education for children between 6 to 14 years in India under Article 21A of the Indian Constitution. The law came into effect in the entire country except the state of Jammu and Kashmir from 1st April 2010. RTE Act, 2009 recommended some major changes in the elementary system of education like making education free and compulsory, construction of curriculum as per constitutional values, ensuring quality of teachers, defining norms for schools, pushing for social reform, protection of child from academic fears and punishments, making admission and transfer procedures more simple, handing over the power and responsibility to hands of people, participation of non-officials and civil society people in the school management, removal of traditional system of examinations and implementation of continuous comprehensive evaluation.

b. Implications of RTE Act for Secondary Education:

RTE Act lays emphasis on free and compulsory education, student centered learning, fearless learning environment, progressive curriculum etc. The policies laid down at any stage of education like primary, secondary or higher has a direct or indirect impact on other stages of education because various stages of our education are inter linked and provide base for one another.

Since Free and Compulsory Elementary Education has become a Constitutional Right of Children in India, it is absolutely essential to push this vision forward to move towards Universalization of Secondary Education, which has already been achieved in developed and developing countries as well.

Secondary Education becomes the means of social transformation in education. Secondary education needs to be reconstructed in the context of today and tomorrow (CABE Report, 2005). A successful completion of Elementary Education is the precondition for taking the first step towards Secondary Education. RTE Act provides strength to elementary education through its various provisions. It also supports secondary education to fulfill its various objectives indirectly. It emphasizes on hundred percent enrolment and retention of students at elementary level, which has spontaneously increased enrolment at secondary level. The RTE Act emphasizes curriculum as per constitutional values. This step helps the administrator to construct curriculum at secondary level according to the educational, social, psychological and physical requirements of the students. The RTE Act, also emphasizes on quality of teachers i.e. they should be well qualified and competent. If the teachers are well qualified and professionally trained they will help in developing students who can perform better at secondary level. Such qualified teachers also provide guidance and counseling to students while choosing their subjects and career for themselves after completion of secondary education.

The RTE Act lays emphasis on the infrastructure facilities of educational institution and the learning environment facilitates students to achieve the objectives of education at elementary level. This helps the learners to continue secondary education in a smooth manner. This Act focuses on association of parents and community members for the development of school at elementary level of education. Through this process, a positive attitude is developed towards schooling and elementary education among the learners, which creates a platform for them to express their ideas and thoughts in a better way at secondary level. The RTE Act stresses on a friendly environment between students and teachers through which students can reduce their doubts and problems, and as a result of this habit they can also perform better at the secondary level.

3.6 Quality Assurance in Secondary and Higher Secondary Education, Women Empowerment as Support Services:

Empowerment can be viewed as means of creating a social environment in which one can make decisions and make choices either individually or collectively for social transformation. The empowerment strengthens the innate ability by way of acquiring knowledge, power and experience (Hashemi Schuler and Riley, 1996). Empowerment is the process of enabling or authorizing individual to think, take action and control work in an autonomous way. It is the process by which one can gain control over one's destiny and the circumstances of one's lives. There are always a number of elements in the society which are deprived of their basic rights in every society, state and nation, but these elements lack in the awareness of their rights. If we enlist such elements from the society, then women would top this list. In fact, women are the most important factor of every society. Even though everybody is aware of this fact, but nobody is ready to accept this fact. As a result, the importance which used to be given to women is declining in today's society. As a consequence of this growing tendency of underestimating women such as to make them occupy a secondary position in society and to deprive them of their basic rights, the need for empowering women was felt. Empowering women has become the focus of considerable discussion and attention all over the world. Today we enjoy the benefits of being citizens of a free nation, but we really need to think whether each of the citizens of our country is really

free or enjoying freedom, in the true sense of the term. The inequalities between men and women and discrimination against women are an age-old issue all over the world. Thus women quest for equality with man is a universal phenomenon. Women should equal with men in matters of education, employment, inheritance, marriage, and politics etc. Their quest for equality has given birth to the formation of many women's associations and launching of movements. The Constitution of our nation doesn't discriminate between men and women, but our society has deprived women of certain basic rights, which were bestowed upon them by our Constitution. Empowerment allows individuals to reach their full potential, to improve their political and social participation, and to believe in their own capabilities.

3.6.1 Importance of Women Education:

"If you educate a man you educate an individual, however, if you educate a woman you educate a whole family. Women empowered means mother India empowered". PT. JAWAHARLAL NEHRU. Women education in India plays a very important role in the overall development of the country. It not only helps in the development of half of the human resources, but in improving the quality of life at home and outside.1 If it is said that education is the key to all problems, then it won't be improper. Thinkers have given a number of definitions of education but out of these definitions, the most important definition is that which was put forth by M. Phule. According to M. Phule, "Education is that which demonstrates the difference between what is good and what is evil". If we consider the above definition, we come to know that whatever revolutions that have taken place in our history, education is at the base of them. 2 Education means modification of behaviour in every aspect, such as mentality, outlook, attitude etc. Educated women not only tend to promote education of their girl children, but also can provide better guidance to all their children. Moreover educated women can also help in the reduction of infant mortality rate and growth of the population.

Obstacles: Gender discrimination still persists in India and lot more needs to be done in the field of women's education in India. The gap in the male-female literacy rate is just a simple indicator. While the male literary rate is more than 82.14% and the female literacy rate is just 65.46%. (b). the women were consider only house wife and better to be live in the house.

3.6.2 Women Empowerment through Education:

Women empowerment is the pivotal part in any society, state or country. It is a woman who plays a dominant role in the basic life of a child. Women are an important section of our society. Education as means of empowerment of women can bring about a positive attitudinal change. It is therefore, crucial for the socioeconomic and political progress of India. The Constitution of India empowers the state to adopt affirmative measures for prompting ways and means to empower women. Education significantly makes difference in the lives of women.3 Women Empowerment is a global issue and discussion on women political right are at the fore front of many formal and informal campaigns worldwide. The concept of women empowerment was introduced at the international women conference at NAROIBI in 1985. Education is milestone of women empowerment because it enables them

to responds to the challenges, to confront their traditional role and change their life. So we can't neglect the importance of education in reference to women empowerment. To see the development in women education India is supposed to upcoming super power of the world in recent years. The increasing change in women education, the empowerment of women has been recognized as the central issue in determining the status of women.4 for becoming super power we have mostly to concentrate upon the women's education. By which it will force on women's empowerment. As per united national development fund for women (UNIFEM) the term women's empowerment means:

- Acquiring knowledge and understanding of gender relations and the ways in which these relations may be changed.
- Developing a sense of self-worth, a belief in one's ability to secure desired changes and the right to control one's life.
- Gaining the ability to generate choices exercise bargaining power.
- Developing the ability to organize and influence the direction of social change, to create a more just social and economic order, nationally and internationally.

Thus, empowerment means a psychological sense of personal control or influence and a concern with actual social influence, political power and legal rights. It is a multi-level construct referring to individuals, organizations and community. It is an international, ongoing process centred in the local community, involving mutual respect, critical reflection, caring and group participation, through which people lacking an equal share of valued resources gain greater access to the control over this resources. Let's see the difference in the literacy rate between men and women in given table are as under

Table 3.2: Literacy Rate in India

Year	Persons	Males	Females
1901	5.3	9.8	0.7
1911	5.9	10.6	1.1
1921	7.2	12.2	1.8
1931	9.5	15.6	2.9
1941	16.1	24.9	7.3
1951	16.7	24.9	7.3
1981	36.2	46.9	24.8
1991	52.1	63.9	39.2
2001	62.38	76.0	54.0
2011	74.	82.1	65.46

On observing the above table, we come to know that at no point could the literacy rate of women match that of men. As a result, even after 65 years of independence, women occupy a secondary position in our social hierarchy. Inspire of being aware of her position, women can't transform the situation due to lack of education. Therefore, women's empowerment can't be effected unless we persuade the importance of women's education.

3.6.3 Importance of Women Participation:

Women's participation may be used both for support by an agency and as a control device by the law-makers. Participation may be direct or indirect, formal or informal; it may be political, social or administrative in nature. Women's participation in Panchayat Raj institutions may take many forms. It refers to all those activities which show the women's involvement in the processes and administration, that is, participation in policy formulation and programme planning, implementation and evaluation of policies and programmes meant for development target groups. Indian women have been associated with politics since the pre-independence period. They were part of the freedom movement both as volunteers and leaders. On independence, Article 15 of the Indian Constitution guaranteed equality to women under the law. Though the Indian Constitution guarantees equal rights to all citizens, women are still marginally represented in the Indian political arena. The fact is that in the hands of women are having lack of power at the centre and state level. It is sad state of affairs that about half of India's population has only 10 per cent representation in the Lok Sabha. In the current Rajya Sabha, there are 21 women out of a total of 233 MPs, which amounts to only nine per cent which is even lower than that in the Lok Sabha. At the societal level male dominance in Parliament, bureaucracy, judiciary, Army, police all point towards gender inequality, notwithstanding the fact that it is often argued that women's political leadership would bring about a more cooperative and less conflict-prone world. Lack of political and economic powers add to the subservient and unequal position of women. After Independence, in spite of having our own constitution, India was not able to achieve morals like fairness, equality and social justice. The condition of women didn't improve even having a woman prime minister for few numbers of years. Women's representation in politics all over the world began to assume importance from mid 1970s when United Nations (UN) declared 1975 as the 'International Women's Year'. This was followed by the UN's decade for Women from 1976-1985 and the theme was "Equality, Development and Peace". Women's participation in politics remained quite inconsequential in India even today but some sort of improvement took place by the 73rd and 74th constitutional amendment acts which gave boost to the status of women at the political level by giving opportunity to women in the process of decision-making. The 73rd and 74th Amendments (1993) to the constitution of India have provided for reservation of seats in the local bodies of panchayats and Municipalities for women, laying a strong foundation for their participation in decision making at the local level.

3.6.4 Educational Equality:

Another area in which women's equality has shown a major improvement as a result of adult literacy programs is the area of enrolment of boys and girls in schools. As a result of higher participation of women in literacy campaigns, the gender gap in literacy levels is gradually getting reduced.

Even more significant is the fact that disparity in enrolment of boys and girls in neo-literate households is much lowered compared to the non-literate householders.11The world has achieved equality in primary education between girls and boys. But few countries have achieved that target at all levels of education. The political participation of women keeps increasing. In January 2014, in 46 countries more than 30% of members of parliament in at

least one chamber were women. In many countries, gender in equality persists and women continue to face discrimination in access to education, work and economic assets, and participation in government.12 Women and girls face barriers and disadvantages in every sector in which we work.

Around the world 62 million girls are not in school. Globally, 1 in 3 women will experience gender-based violence in her lifetime. In the developing world, 1 in 7 girls is married before her 15th birthday, with some child brides as young as 8 or 9. Each year more than 287,000 women, 99 percent of them in developing countries, die from pregnancy and childbirth-related complications. While women make up more than 40 percent of the agriculture labour force only 3 to 20 percent are landholders. In Africa, women owned enterprises make up as little as 10 percent of all businesses. In South Asia, that number is only 3 percent. And despite representing half the global population, women compromise less than 20 percent of the world's legislators. Putting women and girls on equal footing with men and boys have the power to transform every sector in which we work. 13The gender equality and women's empowerment isn't a part of development but at the core of development. To get rid of this we have to make some educational awareness programmes on gender equality and women empowerment for cementing our commitment to supporting women and girls

Women play an imperative role in making a nation progressive and guide it towards development. They are essential possessions of a lively humanity required for national improvement, so if we have to see a bright future of women in our country, giving education to them must be a pre-occupation Empowerment means moving from a weak position to execute a power.

The education of women is the most powerful tool to change the position of society. Education also brings a reduction in inequalities and functions as a means of improving their status within the family. To encourage the education of women at all levels and for dilution of gender bias in providing knowledge and education, established schools, colleges and universities even exclusively for women in the state. The education develops the idea of participation in government, panchayats, public matters etc. for elimination of gender discrimination.

3.7 Universalization of Secondary and Higher Secondary Education (UEE)-Universal Access, Universal Retention and Universal Achievement:

It is universally acknowledged fact that an educated and enlightened citizenry is an essential condition for the successful functioning of a democracy. Education, at least up to the elementary level, is considered essential for every individual in a democratic country. Primary education provides the necessary foundation for strengthening human resources because the quality and efficacy of human resources assume special significance for our personal, social and national development. The entire edifice of our national development is based on the availability and quality of primary education. It was with this objective that the framers of our constitution pledged to provide free and compulsory primary education to each and every child. After becoming independent, India, as a democratic welfare state, announced Universalization of Elementary Education (UEE) and equal opportunity for all as its basic principles.

Education is the basic requirement for success of democracy and progress of the country. Universalization of primary and secondary education is a provision to provide free educational opportunities to all children of the society, irrespective of their caste, creed and sex. Since independence, many steps have been taken and different commissions and committees have given suggestions to achieve universalization of education. Free and compulsory elementary education for all children had been debated even in pro-independence years. It made its way into the Constitution as a Directive Principle. The Constitution of India, under the Article 45, directed the State to "endeavor to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years." But this goal has not been achieved by the States even several decades after India became independent. With the Right of Children to free and Compulsory Education (RTE) Act 2009 coming into force, there is an expectation that this will finally be translated into a provision of quality school education for all children. The Article 21A in the

Indian Constitution reflects Education as fundamental Right and the landmark legislation, RTE Act-2009, makes this right justifiable. The Act strives for quality with equity and makes specific provisions to achieve these goals. So implementation of the RTE Act become responsibility for all stake Holders Central Government, State Government, School and Community, and requires affirmative action. Due to the impact of the programmes undertaken for the Universalization of Elementary Education, there is a rise in the demand of education at the secondary level. At the same time, India's impressive sustained economic growth has increased household and labour market demand for secondary and higher education. Several centrally sponsored schemes have been launched in the Country for the development of secondary education. Rashtriya Madhyamik Shiksha Abhiyan (RMSA) is one of the important initiatives taken by Government of India towards the universalization of secondary education.

Education is the birth right of every child (Dash, 2004). In India, lots of efforts had been made to provide free and compulsory elementary education to every child without any discrimination. The growth of human capital depends upon the quality and the quantity of education. Widespread education is indeed essential to the practice of democracy (Draze and Sen, 2002). The Government of India ensures in article 45 of the Indian Constitution that State shall endeavor to provide free and compulsory education to all children up to the age of fourteen years within ten years of commencement of the constitution. To formulate this constitutional provision was not an easy task. National policy on Education 1986 and its programme of Action, 1992, accorded an unqualified priority to Universalization of Elementary Education (UEE)

3.7.1 UEE:

Universalization of Elementary Education (U.E.E.) is an educational term, which refers to make education available to all children in the age of group of 6-14 years or in Classes I-VIII. In short, universalization of elementary education is the educational provision for all children to get elementary education without any dropouts. Universalization of Elementary Education involves; Universalization of Provision, Universalization of Enrolment, and Universalization of Retention (Sharma, 2013). The provision for Universal Elementary

Education is crucial for spreading basic education, which is a basic requirement for economic development, modernization of social structure and the effective functioning of democratic institution (Khan, 2015).

a. Concerns of UEE for Secondary Education:

A successful elementary education shows the path towards secondary education because elementary education provides the base for secondary education.

UEE mostly talks about four measures of education (Khan, 2013), which are:

- Universal provision for school facilities
- Universal enrolment of pupils
- Universal retention of pupils
- Qualitative improvement of education

These four measures make many provisions for the success of UEE, which directly influences the success of secondary education. Universal Provision of School Facilities: UEE lays great emphasis on school facilities which include - establishment of school within reach of the students and basic infrastructure with teaching-learning facilities should be provided to them. It increases the enrolment in schools and provides the path to facilitate these facilities for secondary education.

Universal Enrolment of Pupils: Universalization of enrolment means all children between the age group 6-14 be enrolled by the primary schools. It makes provisions for a non-enrolled child to be admitted to an age appropriate class. These steps automatically increase enrolment at secondary level.

Universal Retention of Pupils: UEE also emphasized on universal retention of students at elementary level. Universal retention means that after joining school, the children should remain there till they complete their elementary schooling. It also means, to ensure that every child progresses regularly and there is no stagnation. Qualitative Improvement of Education: For the quality improvement of elementary education, it emphasizes on: i) Problems concerning with teachers, (ii) Problem concerning ancillary services, (iii) Problem of classification of primary schools, (iv) Problem of curriculum, (v) Problem of school building, vi) Problem of school facilities, and (vii) Problem of administration. These areas play a major role for the success of elementary education. Many provisions are made to overcome these problems and make the school child friendly. These actions attract and motivate the students to pursue further education. In this way, they can directly join the mainstream higher education.

3.7.2 Universal Access:

Provision of adequate schools of children in all areas is not the only input for solution to the problem. Since independence, there has been a substantial increase in enrolment at the elementary stage of education. In the year 1997-98, the estimated number of children enrolled is the primary stage was 1087.82 lakhs while at the upper primary stage it was

394.87 lakhs. Gross enrolment ratio of children in the age group 6-11 increased from 42.6 percent in 1950-51 to 80.70 percent in 1997-98. Likewise, gross enrolment of 11-14 age group increased from 12.7 percent in 1950-51 to 58.50 percent in 1997-98. While the gross enrolment ratio (GER) at the primary stage in the country as a whole and in most of the states are near about 100 per cent, there are quite a few states where the ratio is considerably lower. These include Uttar Pradesh, Bihar, Rajasthan, Haryana, Jammu and Kashmir and Meghalaya. Most of these states have literacy rates lower than the national average. There is thus a strong regional dimension to UEE so far as its imbalances are concerned.

Gender disparities are conspicuous in regard to enrolment and retention. Girls' enrolment has grown at the primary stage from 5.4 million in 1950-51 to 47.4 million in 1997-98 and that at the upper primary stage from 0.5 million to 15.87 million. The rate of growth of enrolment of girls has been higher than that of boys. But disparities still persist as girls still account for only 43.2 percent of total enrolment at the primary stage and 39.0 per cent at the upper primary stage. The enrolment of SCs and STs has increased considerably at the primary stage. Hence, access to primary schooling varies across states, within states and by gender and social class.

3.7.3 Universal Retention:

By universalization of retention we mean that once a child joins a primary school(s), s/he should remain there till the completion of primary schooling. If the child leaves the school in between, the idea of universalization stands defeated. Mere enrolment of children is not enough. They should attend the school regularly and complete their primary/ elementary schooling. You must have observed that many children who enroll themselves in the schooling system, gradually drop out from the system during the first two years.

The problem gets more complicated as the drop-out rates though declining, continue to be high. Nearly half the children who enter class I drop-out before reaching class VIII. Regional disparities also abound in the context of dropouts. The drop-out rates of girls at the primary as well as the upper Primary stage are much higher than those of boys. Girls' dropout at the primary stage is 41.34 percent as compared to 38.23 percent for boys. The total drop-out rate is nearly 40 percent and 54 percent at the primary and elementary level respectively. Unfortunately, 60 per cent of all the first admission leave the primary school before completing it. It gives birth to problem of wastage. Mere enrolment of children is not enough. These children need to be retained and enabled to complete the full cycle of primary education

3.7.4 Universal Achievement:

India has achieved a great deal so far as providing a primary school for most settlements is concerned. In some states, the primary education system has higher intake capacity than children enrolled at the primary level. The quality of education system is best judged by the learning achievement of the students. With significant gains in enrolment in primary classes, the challenges lies in improving the quality of primary education for higher retention and better performance of students. The level of academic achievement of primary students, as indicated by the baseline surveys carried out under District-Primary Education Project

(DPEP) even in educationally advanced states like Kerala and Maharashtra is quite low. Further available evidence, however shows that primary level learning achievement is low varies according to background of the child and also varies across schools. These findings indicate that children who reach the final year of primary school often have mastered less than half the curriculum. Similar results were formed in two studies of learning achievement in 1,700 randomly sampled schools in 43 low literacy districts in 8 DPEP states. Differences in learning achievement among states and districts are large and vary by gender, caste and area. Many children do not obtain basic reading and numeracy skills. This often causes them to dropout early.

To increase the level of learner attainment our country took Initiative in 1991 and laid down minimum levels of learning (MLLs) to be achieved at the primary stage. The first phase of this programme was implemented through various agencies. Curriculum revision, rewriting of text-books to make them competency-based, enhancing their pedagogical value, training of teachers in class room processes are the major activities undertaken in this regard.

The state government have introduced MLLs fin most of their primary schools including schools run by local bodies and private groups. The District Primary Education Programme (DPEP) has adopted MLLs as a major strategy for improvement of quality of primary education. Non- formal education programme is also adopting MLLs wherever appropriate. Hence, our country looks forward to attaining universalization of achievement or attainment by all children who enroll themselves for primary education.

3.8 Major Schemes and Programmes for Secondary and Higher Secondary Education, RMSA and other Programmes:

Due to the impact of the programmes undertaken for the universalization of elementary education, there is a rise in the demand of education at the secondary level. Despite the increase in the number of secondary schools, the spread of the secondary education throughout the country remains uneven due to regional disparities and differences in the socio-economic background of the people. Several centrally sponsored schemes have been launched in the country for the development of secondary education, namely: Rashtriya Madhyamik Shiksha Abhiyan (RMSA), Model Schools, Girls' Hostel, ICT@schools, inclusive Education for Disabled in Secondary Schools (IEDSS), National Means cum Merit Scholarship (NMMS), Incentive for Girls, Vocational Education and Language Teachers.

Out of these nine schemes, the highest allocation in the Eleventh Five Year Plan has been made for the RMSA programme (Zaidi et.al, 2012). RMSA has been launched to meet the rising demand for quality secondary education. RMSA provides a unique opportunity to improve access and participation for quality secondary education in the country.

The model of democratic decentralization promoted by the RMSA also aims at improving accountability, transparency and service delivery, particularly at the district level. RMSA offers a strategic opportunity to improve access and equity, enhance quality, accountability and ability to measure learning outcomes, and remote standardization of curriculum and examinations across the states (Zaidi et.al, 2012).

3.8.1 Rashtriya Madhyamik Shiksha Abhiyan (RMSA):

RMSA is a centrally sponsored scheme of the Ministry of Human Resource Development, Government of India, for universal access and improvement of secondary education. It came into being after Central Advisory Board of Education (CABE), the highest deliberative and advisory forum on education in the country with education ministers of all the States and eminent educationists as its members, in 2004 and 2005 decided to make secondary education universal. It was launched in March 2009.

The implementation of the scheme has started from 2009-2010 to provide conditions for an efficient growth, development and equity for all. The principal objectives are to enhance quality of secondary education and increase the total enrolment rate from 52% (as of 2005–2006) to 75% in five years, i.e. from 2009–2014 (MHRD, 2014). It aims to provide universal education for all children between 15–16 years of age.

The vision for secondary education as mentioned in the framework for implementation of RMSA is to make good quality education available, accessible and affordable to all young persons in the age group of 14-18 years. RMSA also aims at improvement of quality of education in secondary schools through appointment of additional teachers, in-service training for teachers, ICT enabled education, curriculum and teaching learning reforms etc. with this vision in mind, it further frames many objectives. The objectives of RMSA are as follows (MHRD, 2014).

a. Objectives of RMSA:

- To provide a secondary school within a reasonable distance of any habitation, this should be 5 Kilo Meters for secondary schools and 7 - 10 Kilo Meters for higher secondary schools.
- Ensure universal access of secondary education by 2017 (GER of 100%).
- Universal retention by 2020.
- Providing access to secondary education with special reference to economically weaker sections of the society, the educationally backward, the girls and the disabled children residing in rural areas and other marginalized categories like SC, ST, OBC and Educationally Backward Minorities (EBM).

RMSA is the first large scale intervention for universalizing access to and quality of secondary education covering the socio-economic and ecological variations as well as people from diverse educational and cultural backgrounds. In order to meet the challenge of Universalization of Secondary Education (USE), this framework further says that there is a need for a paradigm shift in the conceptual design of secondary education. The Government of India has approved the following revised norms of RMSA, with effect from 01.04.2013 which are as follows (RMSA, 2015):

- To ensure that all secondary schools have physical facilities, staff and supplies, at least according to the prescribed standards through financial support in case of Government/ Local Body and Government aided schools, and appropriate regulatory mechanism in the case of other schools.

- To improve access to secondary schooling to all young people according to norms – through proximate location (say, Secondary Schools within 5 KMs, and Higher Secondary Schools within 7-10 KMs)/efficient and safe transport arrangements/residential facilities, depending on local circumstances including open schooling. However in hilly and difficult areas, these norms can be relaxed. Preferably residential schools may be set up in such areas.
- To ensure that no child should be deprived from quality secondary education disability due to gender, socio-economic, disability and other barriers.
- To improve quality of secondary education resulting in enhanced intellectual, social and cultural learning.
- To ensure that all students pursuing secondary education receive education of good quality.
- Achievement of the above objectives would also, inter-alia; signify substantial progress in the direction of the Common School System.

Thus, RMSA is a comprehensive programme of the Government of India to drastically change the scenario of secondary school education in the country.

But there are some issues and interventions which are responsible for the successful implementation of the RMSA. In order to overcome the hindrance and attain quality education, RMSA made some recommendations.

The major recommendations are, for example, proper planning and organisation of secondary schools, mapping of secondary school resources and strengthening of existing structure, access and progress in learning outcomes, maintaining a minimum standard in provisions and processes at all secondary schools, quality in teacher training and proper process of teachers appointment, provision of subject and language teacher, use of Information and Communication Technology (ICT) and improvement of vocational education in Schools, bridging gender and social gaps, promoting open schooling system and creating space for Public-Private Partnership (PPP).

3.9 Responsibility between the Union Government and the States:

3.9.1 Responsibilities of the Union Government:

The above sections informed you of the Constitutional provisions in respect of education and the structure of school education. Here below, you will learn the responsibilities of the Centre in school education.

The following are the Centre's responsibilities in school education:

a. To make available free and compulsory education upto the age of 14, as directed in the Constitution.
b. Equalization of educational opportunities with special reference to the reduction of interstate differences and the advancement of the weaker sections of the society.
c. To make arrangements for the provision of scholarships to the needy and competent students.

d. To promote vocationalization of secondary education in all States.
e. To improve standards of education at school stage.
f. To improve the status of teachers and organize teacher education programmes.
g. To facilitate and organize non-formal education programme.
h. To facilitate and organize open school education programme in all parts of the country.
i. To promote educational research in the country.
j. To promote and organize special education programme.
k. To administer school education directly in Union Temporizes and Centrally administered areas.
l. To provide assistance to States, local bodies, and non-governmental organization for development of education, and 13. To provide guidance wherever required.

3.9.2 Responsibilities of the State Government:

School education is under the direct control of State Governments. They prepare educational plans in relation to their needs and conditions by taking into consideration the plan frame and policies prepared at the Centre.

The following are the responsibilities of the State Governments.

a. To establish and maintain educational institutions.
b. To give recognition for the establishment of schools.
c. To provide grants to schools managed by private bodies.
d. To pass laws for different types of school education.
e. To supervise schools through DEOs and Supervisors at Block level.
f. To recruit and place teachers in schools.
g. To prescribe the syllabus and supply books.
h. To establish school boards to conduct examinations.
i. To provide special assistance to poor and backward students.
j. To organize training programmes for teachers and supervisors.
k. To initiate action against teachers and schools in case of any lapse.
l. To feed information to the Centre about schools.
m. To provide academic and training support to schools through its institutions created or the purpose.
n. To promote research and development in education.
o. Till now, you have learned that to administer school education there are Constitutional provisions in the Seventh Schedule i.e., List I, List I1 and List 111. The entries under these lists specify the roles of the Central Government and State Government in education, Union Territories are directly under the control of Central government. But in the States, school education is under the control of States.

For education of weaker sections, minority groups and teaching of mother tongue, there are different articles, i.e. Article 28 for minority groups, Article 29 (i) and 30 (i) and (ii) for the cultural and educational rights of all citizens, Article 29 (ii) for admission to educational institutions, and Article 350 (A), and 351 for the teaching of mother tongue and Hindi language. Further, you have also learned the Article 41, 45 and 46 which state clearly the rules and regulations for the right to education of the weaker sections.

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Chapter 4

Quality in Secondary and Higher Secondary Education

4.1 Concepts, Indicated of Quality, Setting Standards for Performance:

4.1.1 Concept:

Today in the modern time of science and technology especially computer & Mobile with internet facility, it is very difficult to strict to the measures of quality in education. The generation which has seen the orthodox family structure and the generation of present time have different ways of looking into the situation and have different living style of their life. Both the generations have to understand the narrow line of difference between education and quality education. According to UNICEF.

“A quality education is defined by five elements: the learner's outside experiences, learning environment, content of education, learning processes, and education outcomes. Learners must be healthy, well-nourished and supported by their families and communities. The learning environment should be safe, healthy and stimulating. Appropriate education content is relevant to the learner and presented in a well-managed classroom. Learning outcomes should meet promote participation in society”.

a. Definition of Quality Education:

According to VVOB‟s (An NGO):

"A good quality education is one that provides all learners with capabilities they require to become economically productive, develop sustainable livelihoods, contribute to peaceful and democratic societies and enhance individual well-being.

The learning outcomes that are required vary according to context but at the end of the basic education cycle must include threshold levels of literacy and numeracy, basic scientific knowledge and life skills including awareness and prevention of disease. Capacity development to improve the quality of teachers and other education stakeholders is crucial throughout this process."

b. What is Quality Education?

Quality education is not an easy concept to qualify. At a time when we are discussing a quality education for all our learners it is important to take time to understand this concept. "What are considered to be the basic requirements of a quality education - one that is meaningful, worthwhile, and responsive to individuals and social needs - and does each and every student, without fail get those requirements.

Two principles characterize most attempts to define quality in education: the first identifies learners' cognitive development as the major explicit objective of all education systems. The second emphasizes education's role in promoting values and attitudes of responsible citizenship and in nurturing creative and emotional development.

Quality determines how much and how well children learn and the extent to which their education translates into a range of personal, social and developmental benefits. It emphasizes the need of a stimulating pedagogy. It is the teaching and learning process that brings the curriculum to life, which determines what, happens in the classroom and subsequently the quality of the learning outcomes.

c. Impact of Quality Issues:

In the following lines some quality issues are mentioned which directly impact on teaching and learning:

- **Relevant aims:** Policy dialogue must arrive at a relevant balanced set of aims describing what learners should learn and why; the development of cognitive, creative and social skills and values; respect for human rights, the environment, peace and tolerance and cultural diversity. These put citizenship, democracy and human rights at the fore.
- **Subject balance:** how subjects are defined, how many are taught and the time allocated to each.
- **Good use of time:** Positive correlations are noted between instruction time and student achievement at both primary and secondary levels. Between 850 and 1,000 effective hours (not necessarily official hours) of schooling per year is broadly agreed as a benchmark.
- **Pedagogic approaches for better learning:** Child-centered active pedagogy, cooperative learning and the development of critical thinking and problem-solving skills need to be present.
- **Language policy:** Language of instruction is a policy choice affecting curriculum, content and pedagogy. A balance needs to be struck between enabling people to use local languages in learning and ensuring that they have access to global languages.
- **Learning from assessment:** Regular, reliable, timely assessment is a key to improving learning achievement. The goals are to give learners feedback and improve learning and teaching practices. Formative assessment is needed as a complement to formal examinations. How can we provide quality education? A detailed answer to this question is beyond the brief of this short article.

Common Quality Issues in Education:

The education system from the highest levels of government right down to the classroom needs to deliver the knowledge and skills that students need, and to respond as those needs change.

Quality tools and processes can help in checking and maintain the quality in education system. Some starting points such as

a. Accountability: Methods are needed to judge the performance of processes within the system. Accountability means establishing: (i) A systematic method to assure stakeholders (educators, policy-makers and the public) that schools are producing desired results. (ii) Common elements that are applied to all participants. These should include clear goals, progress indicators and measures, analysis of data, reporting procedures and help for participants not meeting goals, and consequences and sanctions. From accountability methods, the need for continuous improvement can become clear.

b. Alignment: A curriculum must match relevant testing programs, evaluation measures and requirements.

Centre view: Student requirements have been determined by the central/state government in the RTE act. Annual progress is needed to meet proficiency standards for all students mandated by 2013-14. This accountability system is based primarily on assessments, but also can include other reliable and valid indicators, such as graduation rates from high school. Academic Achievement Standards are the goals and report cards are the reporting procedures. Seeks to ensure that students are performing at grade level.

State view: State criteria and assessments are in place and are responsible for ensuring: The criterion or standard of performance is communicated clearly too local agencies, districts and schools. Students are performing at grade level.

District view: District standards and assessments need to be in place to ensure: Schools have measurable objectives, intermediate goals and a collection of baseline data. What they are asking of the students aligns with the criteria or standards of performance. The criteria or standards of performance are communicated clearly to the schools and students. Students are performing at grade level.

School view: Principals and teachers translate district standards into student-friendly language and effective teaching and learning. Through achievement, aptitude or competency tests them: Create a common assessment based on standards for all students around certain areas of the curriculum. Ensure students are performing at grade level.

Grade, classroom and student view: Teachers of individual grades and classes work with criteria and assessments from higher levels to ensure that students are performing at grade level and provide additional assistance/service to students who are not.

c. Assessment: Schools need measures for assessing how well students are doing. These measures should incorporate feedback from students, parents, the community and other stake holders.

Types of assessment include:

External assessment, such as state or district tests, communicates what the state or district considers important to teach and learn in school.

Classroom assessment, the day-to-day assessment of students by teachers in the classroom, communicates to students and parents what the school and teacher value in student performance. Alternative assessments are not typical standardized tests. Instead, they involve practices such as demonstrating a skill, answering open-ended questions, assembling portfolios of work and instructor observation of students.

d. Student requirements:

Businesses speak of "customer requirements" what it takes to satisfy the people who consume the product or service being offered. Some of the same methods for achieving customer satisfaction in the business world apply in education as well.

4.1.2 Indicated of Quality:

- **Infrastructure:** all the sample schools have some basic infrastructure. Under this category the items like Classroom, Black Board, Drinking Water & Toilet facilities and availability of playgrounds have been studied. The maintenance of basic infrastructure in the studied CISCE and Delhi govt. Schools are poor than those of CBSE and IB Schools.
- **Physical Environment:** Under this category the items like school boundary, distance of the school from the place of residence, school surroundings and appearance of the school from inside are studied. During the field study it was found that the physical environment of Delhi Govt. Schools is poor than that of the CISCE, CBSE and IB Schools.
- **Teaching-aids:** All the schools studied have some sorts of teaching-aids like OHP, computer, etc. The teaching-aids in IB schools are found better than those of the other 3 categories of schools.
- **Classroom Dynamics:** Under classroom dynamics, the subjects like teaching strategy, student feedback system, student performance, and teacher's attitude have been discussed with the principals and teachers. It was found that the classroom dynamic in Delhi Govt. Schools is poorer than the other three categories of schools. The classroom dynamics in IB School is better than that of the CISCE and CBSE schools.
- **Quality Parameters:** In this category, the overall performance of the teacher in the schools, how frequently teachers are getting training, how much teachers are satisfied with the teaching learning process in the school and students perception about the school have been studied. It is found that the studied IB and CBSE schools stand better than the Delhi Govt. Schools and CISCE Schools in terms of Quality parameter.
- **Work Culture:** Under this the discipline in the schools has been studied. It is found that in terms of work culture, IB stands better than the other 3 categories of Schools. The work culture of Delhi Govt. School is poorer than the CBSE and CISCE Schools.
- **Monitoring and Supervision:** Under this category, monitoring and supervision of the schools by community and their participation in the school activity, monitoring and supervision of the teaching learning activities by the school Principals in the school have been studied. Have been studied. The maintenance of basic infrastructure in studied CISCE and Delhi govt. Schools are poorer than those of the CBSE and IB Schools.

4.1.3 Setting Standards for Performance:

a. The goal of the school education regulatory system must be to continually improve educational outcomes; it must not overly restrict schools, prevent innovation, or demoralize teachers, principals, and students. All in all, regulation must aim to empower schools and teachers with trust, enabling them to strive for excellence and perform at their very best, while ensuring the integrity of the system through the enforcement of complete transparency and full public disclosure of all finances, procedures, and educational outcomes.

b. At present, all main functions of governance and regulation of the school education system - namely, the provision of public education, the regulation of education institutions, and policymaking - are handled by a single body, i.e., the Department of School Education or its arms. This leads to conflict of interests and excessive centralized concentration of power; it also leads to ineffective management of the school system, as efforts towards quality educational provision are often diluted by the focus on the other roles, particularly regulation that the Departments of School Education also perform.

c. The current regulatory regime also has not been able to curb the commercialization and economic exploitation of parents by many for-profit private schools, yet at the same time it has all too often inadvertently discouraged public-spirited private/philanthropic schools. There has been far too much asymmetry between the regulatory approaches to public and private schools, even though the goals of both types of schools should be the same: to provide quality education.

d. The public education system is the foundation of a vibrant democratic society, and the way it is run must be transformed and invigorated in order to achieve the highest levels of educational outcomes for the nation. At the same time, the private/philanthropic school sector must also be encouraged and enabled to play a significant and beneficial role.

e. The key principles and recommendations of this Policy regarding the State school education system, the independent responsibilities within that system, and the approach to its regulation are as follows:

- The Department of School Education, which is the apex state-level body in school education, will be responsible for overall monitoring and policymaking for continual improvement of the public education system; it will not be involved with the provision and operation of schools or with the regulation of schools, in order to ensure due focus on the improvement of public schools and to eliminate conflict of interests.
- The educational operations and service provision for the public schooling system of the whole State will be handled by the Directorate of School Education (including the offices of the DEO and BEO, etc.); it will work independently to implement policies regarding educational operations and provision.
- An effective quality self-regulation or accreditation system will be instituted for all stages of education including pre-school education - private, public, and philanthropic - to ensure compliance with essential quality standards. To ensure that all schools follow certain minimal professional and quality standards, States/UTs will set up an independent, State-wide, body called the State School Standards Authority (SSSA). The SSSA will establish a minimal set of standards based on basic parameters (namely,

safety, security, basic infrastructure, number of teachers across subjects and grades, financial probity, and sound processes of governance), which shall be followed by all schools. The framework for these parameters will be created by the SCERT in consultation with various stakeholders, especially teachers and schools. Transparent public self-disclosure of all the basic regulatory information, as laid down by the SSSA, will be used extensively for public oversight and accountability. The dimensions on which information has to be self-disclosed, and the format of disclosure will be decided by the SSSA in accordance with global best practices for standard-setting for schools. This information will have to be made available and kept updated and accurate by all schools, on the aforementioned public website maintained by the SSSA and on the schools' websites. Any complaints or grievances from stakeholders or others arising out of the information placed in the public domain shall be adjudicated by the SSSA. Feedback from randomly selected students will be solicited online to ensure valuable input at regular intervals. Technology will be employed suitably to ensure efficiency and transparency in all work of the SSSA. This will bring down significantly the heavy load of regulatory mandates currently borne by schools.

- Academic matters, including academic standards and curricula in the State will be led by the SCERT (with close consultation and collaboration with the NCERT), which will be reinvigorated as an institution. The SCERT will develop a School Quality Assessment and Accreditation Framework (SQAAF) through wide consultations with all stakeholders. The SCERT will also lead a "change management process" for the reinvigoration of CRCs, BRCs, and DIETs which must change the capacity and work culture of these institutions in 3 years, developing them into vibrant institutions of excellence. Meanwhile, certification of competencies of students at the school-leaving stage will be handled by the Boards of Assessment/Examination in each State.

f. The culture, structures, and systems that empower and provide adequate resources to schools, institutions, teachers, officials, communities, and other stakeholders, will also build concomitant accountability. Each stakeholder and participant of the education system will be accountable to perform their role with the highest level of integrity, full commitment, and exemplary work ethic.

Each role of the system will have explicitly articulated role expectations and rigorous assessment of their performance vis-à-vis these expectations. The assessment system will be objective and developmentally oriented, while ensuring accountability. It will have multiple sources of feedback and assessment, to ensure a full view of the performance (and will not just be linked simplistically, e.g., to 'marks' of students). The assessment will recognize that outcomes such as educational attainment of students have multiple intervening variables and extraneous influences. It will also recognize that education requires teamwork, particularly at the level of the school. Promotion, recognition, and accountability of all individuals will be based on such performance assessment. All functionaries will be responsible to ensure that this development, performance, and accountability system is run with high integrity, and systematically, within their span of control.

g. Public and private schools (except the schools that are managed/aided/controlled by the Central government) will be assessed and accredited on the same criteria, benchmarks, and processes, emphasizing online and offline public disclosure and transparency, so as to

ensure that public-spirited private schools are encouraged and not stifled in any way. Private philanthropic efforts for quality education will be encouraged - thereby affirming the public-good nature of education - while protecting parents and communities from arbitrary increases in tuition fees. Public disclosure on the school website and on the SSSA website - for both public and private schools - would include (at the very least) information on the numbers of classrooms, students, and teachers, subjects taught, any fees, and overall student outcomes on standardized evaluations such as the NAS and SAS. For schools controlled/managed/aided by the Central government, the CBSE in consultation with the MHRD shall prepare a framework. All the education institutions will be held to similar standards of audit and disclosure as a 'not-for-profit' entity. Surpluses, if any, will be reinvested in the educational sector.

h. The standard-setting/regulatory framework and the facilitating systems for school regulation, accreditation, and governance shall be reviewed to enable improvements on the basis of the learnings and experiences gained in the last decade. This review will aim to ensure that all students, particularly students from underprivileged and disadvantaged sections, shall have universal, free and compulsory access to high-quality and equitable schooling from early childhood care and education (age 3 onwards) through higher secondary education (i.e., until Grade 12). The overemphasis on inputs, and the mechanistic nature of their specifications – physical and infrastructural – will be changed and requirements made more responsive to realities on the ground, e.g., regarding land areas and room sizes, practicalities of playgrounds in urban areas, etc. These mandates will be adjusted and loosened, leaving suitable flexibility for each school to make its own decisions based on local needs and constraints, while ensuring safety, security, and a pleasant and productive learning space. Educational outcomes and the transparent disclosure of all financial, academic, and operational matters will be given due importance and will be incorporated suitably in the assessment of schools. This will further improve India's progress towards achieving Sustainable Development Goal 4 (SDG4) of ensuring free, equitable, and quality primary and secondary education for all children.

i. The aim of the public-school education system will be to impart the highest quality education so that it becomes the most attractive option for parents from all walks of life for educating their children.

j. For a periodic 'health check-up' of the overall system, a sample-based National Achievement Survey (NAS) of student learning levels will be carried out by the proposed new National Assessment Centre, PARAKH with suitable cooperation with other governmental bodies- such as the NCERT– that may assist in assessment procedures as well as data analysis. The assessment will cover students across government as well as private schools. States will also be encouraged to conduct their own census-based State Assessment Survey (SAS), the results of which will be used only for developmental purposes, public disclosure by schools of their overall and anonymized student outcomes, and for continuous improvement of the school education system. Until the establishment of the proposed new National Assessment Centre, PARAKH, NCERT may continue to carry out NAS.

k. Finally, the children and adolescents enrolled in schools must not be forgotten in this whole process; after all, the school system is designed for them. Careful attention must be paid to their safety and rights- particularly girl children - and the various difficult issues

faced by adolescents, such as substance or drug abuse and forms of discrimination and harassment including violence, with clear, safe, and efficient mechanisms for reporting and for due process on any infractions against children's/adolescents' rights or safety. The development of such mechanisms that are effective, timely, and well-known to all students will be accorded high priority.

4.2 Present status of quality education in India (status and prospects) -Delor's Commission Report regarding quality- Professional enrichment of secondary teachers (different in-service programmes for ensuring quality, - SCERT-NCERT-CIET-NUEPA-IASE etc:

4.2.1 Introduction:

When Indian Constitution was enforced, education subject was placed in the State list. But, in 1976, central Government made 42nd amendment in the constitution and with this amendment education subject was placed in the concurrent list. By putting education in the concurrent list, it became the common subject of the Centre and State Government implying that both centre and state government, can make laws on it, but if there is any conflict between the laws of Centre and State government the law of centre government will prevail. According to our constitution education is a state subject and the central government plays an advisory role. The main aims of Center and State Governments are to ensure relevant education for all and to universalize elementary education of satisfactory quality. Proper planning and management is required at different levels of education for proper implementation of policies, programmes and projects, developed at central level and for the promotion of education throughout the country. Keeping in mind the promotion of education throughout the country and proper implementation of policies and programmes, different academic support structures are set up at central level (NUEPA, NCERT) and state level (SCERT, SIEMAT, DIETs)..

4.2.2 Present Status of Quality Education in India (Status and Prospects):

The target age group population of (14-18 years children) was 9.69 crore in 2011 as per Census data (Registrar General of India). The estimated population of this age group in 2016 is 9.30 crore (MHRD, Department of Hr. Education, Statistical Bureau). The Gross Enrolment Ratio for classes IX-XII in 2005-06 was 40.42%. The figure for classes IX - X was 52.19 % whereas that for classes XI-XII it was 28.47%. As against the target GER of 100%, change in the GER at secondary level since 2005-06is as follows:

Table 4.1: GER of Secondary Level

Year	GER-Total	GER- Girls	GER-Boys
2005-06 (SES)	52.19%	46.20%	57.60%
2009-10 (launch year of RMSA (SES)	62.90%	58.70%	66.70%
2012-13 (UDISE)	67.35%	65.98%	68.60%
2013-14 (UDISE)	76.64%	76.47	76.80%

Overall enrolment in the country at secondary level has increased from 30675872 in 2009-10 to 37296683 (22%) in 2013-14. Increase has been observed in all States. The enrolment has increased considerably in Jharkhand (103%), Sikkim (83%), Chhattisgarh (83%), Nagaland (78%) and D&N Haveli (72%).

4.2.3 Delor's Commission Report Regarding Quality:

The Delor's Report was a report created by the Delor's Commission in 1996. It proposed an integrated vision of education based on two key concepts, 'learning throughout life' and the four pillars of learning, to know, to do, to be and to live together. It was not in itself a blueprint for educational reform, but rather a basis for reflection and debate about what choices should be made in formulating policies. The report argued that choices about education were determined by choices about what kind of society we wished to live in. Beyond education's immediate functionality, it considered the formation of the whole person to be an essential part of education's purpose. The Delor's Report was aligned closely with the moral and intellectual principles that underpin UNESCO, and therefore its analysis and recommendations were more humanistic and less instrumental and market-driven than other education reform studies of the time. The Delor's Report identified a number of tensions generated by technological, economic and social change. They included tensions between the global and the local; the universal and the particular; tradition and modernity; the spiritual and the material; long term and short term considerations; the need for competition and the ideal of equality of opportunity; and the expansion of knowledge and our capacity to assimilate it. These seven tensions remain useful perspectives from which to view the current dynamics of social transformation. Some are taking on new meaning, with fresh tensions emerging. These include patterns of economic growth characterized by rising vulnerability, growing inequality, increased ecological stress, and rising intolerance and violence. Finally, while there has been progress in human rights, implementation of norms often remains a challenge.

a. The Four Pillars of Education:

One of the most influential concepts of the 1996 Delor's Report was that of the four pillars of learning. Formal education, the report argued, tends to emphasize certain types of knowledge to the detriment of others that are essential to sustaining human development.

- **Learning to know,** by combining a sufficiently broad genera! Knowledge with the opportunity to work in depth on a small number of subjects. This also means learning to learn, so as to benefit from the opportunities education provides throughout life.
- **Learning to do,** in order to acquire not only an occupational skill but also, more broadly, the competence to deal with many situations and work in teams. It also means learning to do in the context of young peoples' various social and work experiences which may be informal, as a result of the local or national context, or formal, involving courses, alternating study and work.
- **Learning to live together,** by developing an understanding of other people and an appreciation of interdependence – carrying out joint projects and learning to manage conflicts -in a spirit of respect for the values of pluralism, mutual understanding and peace.

- **Learning to be,** so as better to develop one's personality and be able to act with ever greater autonomy, judgment and personal responsibility. In that connection, education must not disregard any aspect of a person's potential: memory, reasoning, aesthetic sense, physical capacities and communication skills.

Formal education systems tend to emphasize the acquisition of knowledge to the detriment of other types of learning; but it is vital now to conceive education in a more encompassing fashion. Such a vision should inform and guide future educational reforms and policy, in relation both to contents and to methods.

4.2.4 Professional Enrichment of Secondary Teachers (Different in-Service Programmes for ensuring Quality):

In India, teacher training programmes are generally categorized as pre-service and in-service teacher training programme. In broader sense, in-service teacher training programmes are considered as programmes for professional development of teachers. Many policy documents highlighted this dimension of in-service teacher education.

Role of in-service teacher training was highlighted by Secondary Education Commission (1952-53) under the chairmanship of Dr. A. Lakshman Swami Mudaliar which advocated:

"However excellent the programme of teacher-training may be, it does not by itself produce an excellent teacher. It can only engender the knowledge skills and attitudes which will enable the teacher to begin his task with a reasonable degree of confidence and with the minimum amount of experience. Increased efficiency will come through experience critically analyzed and through individual and group efforts at improvement.

The teacher training institution should accept its responsibility for assisting in this in-service stage of teacher-training. Among the activities which the training college should provide or in which it should collaborate are: (1) refresher courses, (2) short intensive courses in special subjects, (3) practical training in workshop, (4) seminars and professional conferences. It should also allow its staff where possible to serve as consultants to a school or group of schools conducting some programme of improvement. (p. 139)"

The Education Commission (1964-66) also recommended that "school complexes" with a nodal school shouldering the responsibility for the continuous professional development of all teachers working in the schools, should be established. State Institutes of Education (SIEs) have come up in various states as outcome of these recommendations.

Report of the National Commission of Teachers-I (1983-85) titled "Teacher and Society", also recommended that every teacher must attend in-service training of 3 weeks' duration once in a block of five years and it should be linked with career promotion.

The National Policy of Education (NPE 1986/92) mentioned categorically that "teacher education is a continuous process, and its pre-service and in-service components are inseparable."

In 1987, a crash programme on a massive scale orientation of five lakh teachers, every year was launched in the name of "Programme of Mass Orientation of School Teachers" (PMOST). Subsequently it was replaced by another crash course in the name of "Special Orientation Programme for Primary Teachers" (SOPT). Both these programme were short term measures and were able to create only awareness among teachers.

Clarifying the role of in-service teacher education as professional development activity, The **Acharya Ramamurthy Review Committee (1990)** explicitly advocated that "in-service and refresher courses should be related to the specific needs of the teachers. In-service education should take due care of the future needs of teacher growth; evaluation and follow up should be part of the scheme."

Many review reports and documents on teacher education have critically examined the role of in-service teacher education in India. Highlighting the critical condition of in-service teacher education in India, **National Knowledge Commission (NKC) (2006-09)** commented that:

"In-service training shows problems of inadequate quantity, uneven quality, outdated syllabi, and poor management. A very large proportion of school teachers in the country have received no in service training at all. In any case, many DIETs are currently understaffed, demoralized, and incapable of giving good quality training to teachers. In part, this is because teacher training positions are often occupied by those who have not themselves been school teachers."(p.53).

In terms of remedy, it suggested that "The teacher training course should not be seen in terms of a finite period of time, but as a process by which the quality of teaching and learning in the classroom can be regularly improved, in a context that fosters an attitude of lifelong learning. Therefore, there should be a mechanism for feedback and subsequent interaction between teachers and the training institutes, especially for pedagogical techniques that are new or require more continuous innovation from the teacher". NKC further "suggests the provision of short term in-service courses (in both contact and distance mode) that teachers can choose from. These could include courses developed outside the DIET/SCERT structure, subject to a thorough review of quality. In addition to being made more flexible, in-service teaching courses need to be incentivized, possibly by making attendance and completion of such courses prerequisites to professional advancement."

NKC also suggested that if a web-based teachers' portal could be developed, it will be a nice platform to interact, share experiences and ideas for teachers. It should be part of in-service teacher training programmes.

The Report by NCERT (August, 2009) on "Comprehensive Evaluation of the Centrally Sponsored Scheme on Teacher Education" has set out the immediate tasks which form agenda as under:

- To enhance the institutional capacity available at present for ensuring the adequate supply of trained teachers for all levels of school education;

- To utilize all possible kinds of institutions, including university departments of education and teacher training institutions in the private sector, for in-service training of the existing cadre at all levels, in addition to State institutions, including CTEs;
- To recognize teacher education (for all levels of school education, from preschool to senior secondary) as a sector of higher education and to facilitate cooperation and collaboration between institutes of teacher training and colleges of general education or universities with a view to enabling interaction between different departments of a local college (or university) (e.g. sciences, languages, social sciences) and the institute of teacher training.
- To envision a comprehensive model of teacher education, utilizing the Chattopadhyaya Commission Report and updating its perspective, and ensuring that progress towards a new, comprehensive model is paralleled by necessary modifications in policies of teacher recruitment, deployment and service conditions, including emoluments;
- To prepare a curriculum policy and framework for teacher education which is consistent with the vision of the NCF, 2005, and to translate it into imaginative syllabi and textbooks for pre-service courses and sets of in-service training material suited to diverse conditions and needs; and
- To bring about synergy between institutional structures operating at different levels, e.g. NCERT and NCTE at national level, SCERTs and boards of education at State level, DIETs and under graduate colleges at the district level and so on.

The Report states that "Block and Cluster Resource Centers were established during DPEP in some selected districts after which these centres were expanded across the country as part of the SSA programme, for improving the quality of elementary education. Thus, the staff duties and responsibilities are presently based on the SSA Framework of Implementation and its objectives. But due to successful implementation of SSA programme the enrolment at secondary stage has increased. Besides this, universalization of secondary education is also under active consideration. Keeping this in view, there is an urgent need to change the role and functions of BRCs and convert these into Block Level Institutions of Teacher Education (BITEs).

National Curriculum Framework for Teacher Education (NCFTE)-2009, proposed many initiatives to strengthen in-service teacher education as a mean of professional development. Chapter 4 of NCFTE deliberates in detail about continuous professional development and support for in-service teacher education.

It also suggested that various agencies can play a vital role in providing in-service professional development for teacher. Teachers could also be provided short-term fellowships and funding support (based on proposals) to either come to the DIET, CTE, IASE and University Department or carry out specific activities for the school children and teachers in their own district.

- University and college faculties of sciences, humanities and social sciences could include extension services for school teachers, opening up their labs and libraries to teachers and sharing with them advances and new ideas.
- Colleges of pre-service teacher education could include extension activities which would also enable their learners and faculty to keep in touch with active teachers.

Teacher Learning Centres (TLCs) in teacher education institutes can act as the hub of both pre-service education as well as continued professional development for teachers in service. They could also provide special services to their alumni, continuing to mentor and keep track of their developments.

- Schools, under the leadership of interested principals and able to support additional adjunct faculty, could themselves develop into resource centres for neighbouring
- Schools. These could also include schools run by NGOs and other private agencies interested in contributing to the development of all schools in the neighbourhood, both government and private, and affiliated to any board.
- IASEs, CTEs, DIETs, BRCs and CRCs could also research and develop training aimed at overall school improvement or to target the needs of special schools or groups of children in the district. They could also focus on providing school based support to teachers, by working closely with the school heads.

The Revised Implementation Framework of SSA (2011) has recommended strengthening of the BRCs, Urban Resource Centres (URCs) and CRCs for providing academic support to teachers. BRCs/URCs and CRCs are the most critical units for providing training and on-site support to schools and teachers. Given the significance of these structures SSA, will strengthen faculty and infrastructure support to BRC/ URC and CRCs. States must focus on improved selection criteria for the coordinators and faculty of BRC/URC and CRCs. The selection criteria should take into consideration experience, qualifications and aptitude for training and research. States must provide facilities for continuous skill enhancement of BRC/URC and CRC coordinators and faculty. Functional linkages between BRCs/URCs and CRCs and DIETs and district level resource groups should be strengthened. The norms governing the support under SSA for BRC/URC and CRC have been specified in the Framework.

Department of School Education and Literacy, Ministry of Human Resource Development, Government of India has come up with guidelines for implementation for Restructuring and Reorganization of the Centrally Sponsored Scheme on Teacher Education, in June, 2012. In the guidelines it has been suggested that,

"The in-service teacher education programmes would work for the development of Master Resource Persons (especially for training at the block level) as well as direct work with teachers with a view to continuously enhance understanding of and better quality of planning and implementation of all parts of the curriculum. DIETs are also expected to organize specially designed courses for Head Masters, Officers of the Education Department upto Block level, members of VECs, SMCs, Community Leaders, Heads of PRIs, BRC/CRC coordinators." (p. 32) in these guidelines, a shift was advocated as follows:

Table 4.2: Shifts Required in Teacher Education

To Enact a Shift in Perspectives and Practices	
From	**To**
Teacher directed, fixed designs	Learner-centric, flexible processes
Learner receptivity	Learner agency, participation in learning

To Enact a Shift in Perspectives and Practices	
From	**To**
Knowledge as an individual act	Knowledge as constructed, evolving
Learning as an individual act	Learning as a collaborative, social process
Disciplinary focus	Multidisciplinary, educational focus
Assessment judgmental, mainly through competitive tests for ranking, leading to trauma and anxiety	Assessment for Learning, self-assessment to enhance motivation, through continuous non-threatening processes, to record progress over time.

Report of the High-Powered Commission on Teacher Education constituted by Hon'ble Supreme Court of India (2012), titled "Vision of Teacher Education in India: Quality and Regulatory Perspective", commonly known as Justice Verma Commission, suggested to set up a model INSET policy, which should focus on following issues:

- The in-service teacher education as a strategy for continuing professional development must address all categories of educational personnel in the school system i.e., teachers at all levels, school heads, supervisors, library staff, etc. It also advocates that teachers working in private unaided schools are out of domain in various centrally sponsored schemes for professional development. New INSET policy must make provisions for inclusion of teachers of private schools also for in-service education.
- It should be obligatory for every teacher to participate in the in-service education programmes, at a time of his/her choice and convenience.
- The parameters of successful completion of a training module in a training cycle need to be defined and should be linked with some incentives in the form of advancement in career or in terms of financial gains.
- Separate training modules have to be developed for elementary stage (primary and upper primary), secondary and senior secondary teachers, heads of schools, supervisors and library staff, etc.
- There is need to develop a national as well as state action plans to implement INSET policy in desired manner.
- Institutions imparting in-service teacher education need to be strengthened in several ways- learning resources, academic support from universities and other institutions, qualified resource persons, etc.
- There is shortage of institutions for imparting training to teachers at secondary and senior secondary levels. Hence, existing CTEs should be strengthened and new training centers can be established.
- A training center cum resource center should be established in ODL as a resource center for continuous professional development of teachers.
- The institutions of educational technology along with ODL institutions shall have to undertake programmes for development and production of audio-visual programmes.
- The success of in-service education depends on the strength of each of its four pillars: content of training, overall ethos of the training venue, resourcefulness and ingenuity of trainers and receptivity and involvement of the trainees.

As a teacher, if you go through these details, you can conclude that our policies are quite concerned about in-service teacher education as a tool for professional development. Many efforts have been made but still there is a large gap between demand and supply. Most of the governmental efforts are limited to teachers of government or government aided institutions and a large number of teachers teaching in private un-aided schools are deprived of it. The discussion also highlighted the efforts in terms of establishment of DIETs, CTEs and IASEs and their present situation. These institutions designed institutionalized methods for professional development of teachers.

4.2.5 State Council of Educational Research and Training (SCERT):

The first step taken in the direction of the setting of SCERT's on the pattern of NCERT in all the states and union territories of India was the D. O. No. F. 19-17/78- SCH-5 dated 23.3.79 from Mrs. J. Anjani Dayanand, the Joint Secretary, Department of Education, Ministry of Education and S.W., Government of India, addressed to the State Secretaries.

In fact she had been making correspondence with the State Governments on the subject of reorganization of State Institute of Education (SIEs), State Institutes of Science Education (SISEs) into State Council of Educational Research and Training (SCERTs) Since March 1978. The correspondence referred above contained a detailed guidelines for the reorganization of SIEs and SISEs into SCERTs touching all the organizational, administrative and academic sides of the matter. This Magna Carta of qualitative improvement programme is an important document.

Most of the SIEs were established in 1964 with their functions of training, extension, research and Publication limited to elementary education. After some time functions related to secondary and higher secondary education were included in the domain of SIE in some states. SIEs in some states took the responsibility of Science education, teaching of English, audio-visual education, teacher training and vocational guidance, etc.

SCERT is in fact a counterpart of NCERT in the State. It has been given the responsibility of overseeing the work done in the academic wing of the School Education Board in the area of curriculum renewal and development of textbooks. Objectives behind setting of State Council of Educational Research and Training (SCERT).

- To bring about qualitative improvement in the existing education system.
- To develop the curriculum of various school subjects.
- To provide pre-service and in-service education for teachers and educational supervisors.
- To develop new techniques and methodologies in the field of school education.
- To undertake and promote investigation, surveys, studies and researches in various fields and sections of education.
- To formulate and implement pilot projects for bringing about quality improvement in different fields of school education.
- To evaluate, monitor and develop educational programmes.
- To provide career guidance and counseling to school students.

a. Major Support provided by SCERT to Promote Education at State Level:

- In-Service Training of Teachers: SCERT arranges in-service training of teacher educators working in teacher training institutions for all the stages of education from preschool to secondary stage.
- In-service Training of Supervisory Officers: It arranges in-service training and orientation of supervisory and inspecting officers dealing with preschool, elementary, secondary and senior secondary education in the state.
- Extension Services: It provides extension services to teacher training institution at all levels.
- Coordinate Extension Services: It coordinates the work of extension centers of teachers training institutions in the state.
- Programmes for Professional Development: It organizes programmes including correspondence-cum-contact course for overall professional development of teachers, teacher educators, supervisory and inspecting officers.
- Preparing of Curricula, Instructional Material and Textbooks: It prepares curricula, instructional material and textbooks for the use of educational institutions and teachers of preschool, elementary, secondary and senior secondary stages in the state.
- Prescribing Curricula: It prescribes curricula for school and teacher training institution at preschool and elementary stage.
- Prescribing textbooks: It prescribes textbooks for schools and teacher training institutions at preschool and elementary stage.
- Producing Instructional Material: It produces instructional material for the use of teacher educators at secondary and senior secondary education level.
- Coordinating Programme: It co-ordinates the programme of different subject teachers associations in the state.
- Controlling Authority: It functions as a controlling authority essentially in connection with academic aspects of elementary teachers education and if possible in connection with its administrative aspect also.
- Conducting Studies and Investigations: It conducts studies and investigations in various problems of education in general and in the training of teachers and the teaching of the curricula at levels of preschool, elementary, secondary and senior secondary education. 13.
- Acting as agent of change: It acts as an agent of change in school education and life-long non-formal education in general and in teacher education in particular.
- Undertake Projects: It undertakes such specified projects at different levels of education as be entrusted to it by government from time to time.

The conference of Directors/ Principals of SIEs/ SISEs/ SCERTs/ SIERTs held at New Delhi recommended that the State and Union Territories should take immediate steps towards bringing all institutions of teacher education, educational research and extension together in the shape of SCERT. It also recommended that function regarding teacher education, research, extension, curriculum construction, etc. in connection with the stages of pre-school, elementary, secondary and senior secondary education including non-formal education should be brought under the purview of the SCERT. SCERT perform all the above said functions under various department and units.

The major three units are Department of Curriculum Development, Department of Training and Extension and Department of Educational Technology. These three departments are further divided under many sub-units, so as to disseminate work properly and to achieve the above said objectives.

4.2.6 National Council of Educational Research and Training (NCERT):

The National Council of Educational Research and Training (NCERT) is another apex resource organization set up by the Government of India. It is an autonomous organization which was established on September 1, 1961 with its headquarter at Delhi. It is registered under the societies Registration Act, 1960 and function as the academic advisor to the Ministry of Education and Social Welfare. It is wholly financed by the Department of School Education and Literacy, MHRD, Government of India. It was set up to promote the research and training in the field of education and social welfare. It assists and advises the Centre and State government on academic matters related to school education. The Union Ministry for Education and Youth Services is the President of the General body of the council. The Chairman of UGC and the secretary or the secretary of the H.R.D. Ministry and Social Welfare are its Ex-Officio members. Four vice-chancellor of universities in different zones of the country are nominated to the membership of the council. All the above member constitute the General body of NCERT. The Administration of NCERT is in the hands of executive committee which comprised of Director, Joint Director, Dean Academic and Research, Dean Co-ordination and Secretary. NCERT functions through various constituent units like – National Institute of Education (NIE); Central Institute of Educational Technology (CIET), New Delhi, Five Regional Colleges of Education at Ajmer, Bhopal, Bhubaneswar, Mysore and Shillong; Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal; and Field Advisers' officers in the States.

a. Academic Supports Provided by NCERT:

With a view to improve the quality of School education in India, the major supports that NCERT provide are as follows:

- It determines the aims of school education.
- It prepares model curriculum for different levels of school education.
- It prepares textbooks for School Education.
- It determines the aims of the training of School Teachers.
- It prepares the curriculum for the training of teachers at different levels.
- It organizes pre-service and in-service training mostly at advanced level.
- It performs new experiments in the field of Education.
- It makes efforts for the expansion and upliftment of secondary education.
- It undertakes, promotes, aids and coordinates research in all branches of education.
- It organizes extension services in educational institutions.
- It undertakes and organizes studies, investigation and surveys relating to educational matter on the assessment of educational programmes.
- It establishes coordination with state level institutions and implements policies and programmes relating to educational reforms.

- It establishes coordination with organizations of International level like UNESCO and UNICEF.
- It provides training and research facilities to educationists and persons associated with education at different levels.
- It publishes Journals, research reports, teachers' guides and other useful material for the benefits of teachers, students, research workers and other persons associated with education. Some of the well-known Journals and magazines published by NCERT are:

  i. Indian Educational Review
  ii. Journal of Indian Education
  iii. School Science (Quarterly)
  iv. The Primary Education
  v. Bhartiya Adhunik Shiksha
  vi. Prathmik Shikshak

- It organizes National Talent Search Programmes at National and State level, to identify talented students.
- It organizes survey at National level after every five years, so as to evaluate development of education.
- It disseminates improved techniques and Practices; and acts as a clearinghouse for ideas and information on all matters relating to School education.

In order to carry out its functions effectively, NCERT works in close cooperation with the education departments in the states, and it has a network of offices of field advisors in different states.

It also maintains a close liaison with universities and generally with all institutions set up in the country for furthering the objectives of School education. In addition NCERT interacts with similar international and national organizations throughout the world.

4.2.7 Central institute of Educational Technology (CIET):

The Central Institute of Educational Technology is an autonomous organization, formed as a nodal agency under the National Council of Educational Research and Training (NCERT) in 1984 for promoting the use of mass media technology for expanding and improving the quality of education at the school level. The Institute is funded by the Ministry of Human Resources Development, Government of India.

The origin of the Institute was effected by merging two departments of NCERT, Center for Educational Technology and Department of Teaching Aids, with an aim to make the new age technologies in mass media available at the school level. The activities of the Institute are centered on the branches of media such as radio, television, movies, satellite communications and cyber media. CIET is involved in various activities such as design, development and dissemination of alternative learning systems, promotion of Educational Technology, training of personnel in Educational Technology, coordination of activities of its subsidiaries like the State Institutes of Education Technology (SIET) and consultancy and media support to other constituents of NCERT.

A. Objectives:

- The main objectives of the Central Institute of Educational Technology is to act as the central point or the main resource centre for the propagation of school education media software, which are acquired through various sources, namely regional, international and national.
- Another main objective is to achieve excellence in production, research and design for educational software for children, parents and teachers.
- Teacher education and quality improvement of schools are also some of the main objectives. Critical appreciation of educational technology policy in India is something they look forward to.

B. Functions of CIET:

- To encourage the use of Educational technology in the spread of education.
- To organize training programmes in connection with school-broadcasting and Educational Television.
- To develop learning aids based on Educational technology.
- CIET functions with six vertical divisions, each attending to its own areas of responsibilities.
- The Division caters to the two main aspects of media production of video and audio productions under two separate departments.

4.2.8 National University of Educational Planning and Administration (NUEPA):

The NUEPA is the national apex institution in the field of educational planning and administration. The national university has its origin dating back in 1962 when the UNESCO established the Asian Regional Centre for Educational Planners and Administrators which later became the Asian Institute of Education Planning and Administration in 1965. After four years of its existence it was taken over by the Government of India and renamed as the National Staff for Educational Planners and Administrators. Subsequently with the increased roles and functions of the National College, particularly in capacity building, research and professional support services to government, it was again renamed as the NIEPA in 1979. But in August 2006 it was named as NUEPA.

NUEPA is an autonomous body established by the ministry of Human Resource Development, Government of India. It is a prime organization dealing with capacity building and research in planning and management of education not only in India, but also in South Asia. The Government of India has empowered it to award its own degree by way of conferring on it the Status of deemed university in August 2006. Like any other Central university NUEPA is fully maintained by Government of India. Academic Supports Provided by NUEPA to Center and State Government are as follows:

a. **Organize training programme:** It organizes pre-service and in-service training programme in the area of educational planning and administration.

b. **Co-coordinating research:** It promotes and coordinate research in various aspects of educational planning and administration and allied disciplines.
c. **Providing Guidance:** It provides academic and professional guidance to agencies and institutions regarding planning and administration.
d. **Offering Ph.D. and M. Phil Programme:** It offers Ph.D. course and awards degrees in educational planning, finance, comparative education, School education and higher education.
e. **Act as a Clearinghouse:** It acts as a clearinghouse of ideas and information on research, training and extension in educational planning.
f. **Publishing Journals and Periodicals:** It prepares, prints and publishes papers, periodicals and books, especially brings out a Journal on Educational Planning and administration.
g. **Organizing Workshops, Trainings and Seminars:** It organizes meetings, workshops and seminars for educational personnel of the Central and State government and Union territories.
h. **Consultancy Services:** It provides consultancy services in the sphere of education planning and administration for Centre as well as State Government Universities.
i. **Organizing Refresher Courses for Teacher Educators:** NUPEA organizes orientation and training programmes, and refresher courses for teachers, educators and for college administration.
j. **Discussion and Issues:** It Initiates and encourages discussion on educational issues of National significance.
k. **Contacts and Collaborations:** It establishes contacts and advances academic collaboration with inter institutions in India and abroad particularly in countries of third world. NUEPA has developed close links with UGC, NCERT, CSIR, etc. NUEPA has entered into memorandum of agreement with UNESCO's International Institute of Educational Planning.
l. **Offering Scholarship and Academic Awards:** It offers fellowship, scholarships and awards.
m. **Conferring Honorary Fellowship:** It confers honorary fellowships on eminent educationists for continuation in the field of educational planning and administration.
n. **Disseminating Information:** It disseminates information relating to experience and new advances in the area of educational Planning and administration.
o. **Symbolic Links:** It builds symbolic links between the imparting and generation of knowledge. It also strengthens basic and applied research in sphere of educational planning and administration.

4.2.9 IASE:

The 'Draft Guidelines' for implementing the CTEs and IASE Component were got prepared through Ed. CIL and were circulated by the Central Government to all states and UTs in October 1987: The ED.CIL document together with certain subsequent circulars, formed the basis for its implementation of the CTE and IASE scheme. The first lot of CTEs and IASE were sanctioned in February-March, 1988. According to 155 th Report of the Department-related Parliamentary Standing Committee on Human Resource Development (Department of Elementary Education and Literacy-MHRD, GOI), 498 DIETs, 86 CTEs, and 38 IASEs have been sanctioned so far (as on 26th February, 2005) by the Central Government.

The major task of CTEs and IASE is to offer superior–quality in-service and pre-service programmes for secondary school teachers, personnel of adult education and non-formal education. The CTEs and IASE were established primarily as pace setting and innovative institutions to lift secondary teacher education from its low status and put it on the high pedestal of professionalism. The CTEs and IASE are required to, take up initial and incumbent teacher training; planning and management of the secondary, adult and non-formal education of the district; research and development (R&D); curriculum and material development, co-ordination of innovations; providing work experience; use of education technology and development of low and No-cost gadgets, evaluation etc. In fact, the CTE and IASE are the 'Academic Lead Institutions' and 'Centers of Excellence' of the district. In form and structure, CTEs and IASE have great similarity with the University Departments of Education.

The CTEs and IASE are required to combine the twin functions of secondary school teachers as well as of elementary teacher educators. The CTEs and IASEs are expected to perform the following broad functions;

- Imparting of quality pre-service and in-service education to the secondary school teachers;
- Preparation of personnel for the faculties of elementary teacher education institutions, and their continuing education;
- Provision of general resource support to the secondary schools and elementary teacher education institutions and
- Research, innovation and extension work in the field of secondary education and elementary teacher education.

The Institution of Advanced Study in Education (IASE) is provided central assistance on an enhanced scale so that they can function as 'Centers of Excellence and Research'. In the present era of Information and Communication Technology (ICT) revolution and General Agreement on Trade in Services (GATS), the CTEs and IASEs have to be ready for global competition and inculcate quest for excellence and perfection.

Role of IASEs (Institute of Advanced Study in Education) The IASE has to perform the following specific functions. The IASE has to:

a. Organize pre-service teacher education courses (B.Ed.) for preparation of teachers for secondary schools.
b. Conduct programmes in elementary teacher education so as to prepare elementary teacher educators.
c. Conduct M.Ed., M. Phil and Ph.D. programmes in education.
d. Organize subject-oriented and theme-specific in-service teacher education programmes for secondary teachers. Such programmes may be of one week duration to four weeks duration.
e. Conduct in-service courses for teacher educator, head masters of secondary schools and inspecting officers.
f. Provide extension and resource support to secondary schools, school complexes and individual teachers.

g. Organize longer duration and specialized course in appropriate areas.
h. Provide academic guidance to DIETs and resource support to CTEs.
i. Conduct experimentation, innovation and advanced level research in education.
j. Encourage community participation in teacher preparation programmes.
k. Conduct training programmes on use of educational technology.
l. Develop instructional materials, teaching aids and kits.
m. Shoulder academic responsibility in the following areas:

- Foundations of Education
- Pedagogy and Methodology
- Educational Technology and Media Resources
- In-service Education and Extension Programme
- Special programmes such as science Education
- Vocational Education - Environmental Education
- Work Experience - Population Education
- Language Teaching - Computer Education
- Social Education
- Planning and Management
- Adult Education and Non-formal Education
- Elementary Education

n. Act as centre of Excellence and Research.

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Chapter 5

Concerns in Secondary and Higher Secondary Education

5.1 School Effectiveness, Classroom Climate and Teacher Attributes, Rewards and Punishment/Order and Discipline, Law and Order in the Society and its Effect on School:

5.1.1 School Effectiveness:

The term 'school effectiveness' has been widely used since 1960s. It was frequently related with the school effort to make changes toward improving the students' level of achievement. In an effective school, the goal is to teach basic skills and appropriate behaviours to all students. Besides, in such a school, an optimum learning environment is created by supporting the cognitive, affective, psychomotor, social and aesthetic development of the students. Effective schools are those that successfully progress the learning and development of all of their students. There is no simple recipe for an effective school. In the most general sense, 'school effectiveness' refers to the level of goal attainment of a school. Many factors combine to make each school what it is, and each school is unique. However, it is possible to identify a set of factors or characteristics that contribute to school effectiveness.

Identifying effective and ineffective schools is a dominant issue in education in light of the increasing concern for achievement and accountability. The effective schools movement continues gaining momentum among school personnel whose primary responsibility is to meet the challenge of providing each student with the opportunity to develop to the fullest potential. In the last decade, educational research efforts concerning effective schools have focused on identifying the characteristics of an effective school and establishing specific criteria for measuring effectiveness. Reviews of the effective schools literature reveal that there is no consensus on the definition of an effective school. Effectiveness, according to Webster's New Riverside University Dictionary, is a noun related to producing a desired or intended effect. In order for a school to be termed as effective, it needs to have certain characteristics. Brook over (1979) emphatically stated that the characteristics of an effective school are not isolated components, but that they are integrated and must be considered as a whole. Definitions of effectiveness should encompass qualitative variables (i.e., school climate, instructional leadership, high expectations, etc.) as well as quantitative variables (public achievement scores).

A. Basic Components for an Effective School:

While the characteristics help to define an effective school, the presence of some basic components ensures school effectiveness. The components for an effective school are defined by the researchers as follows:

- **Clear School Mission:**

In the effective school, there is a clearly articulated school mission through which the staff shares an understanding of and commitment to instructional goals, priorities, assessment procedures and accountability. Staff accepts responsibility for students' learning of the school's essential curricular goals. The focus is on achieving a shared vision, and all understand their role in achieving the vision. The focus and vision are developed from common beliefs and values, creating a consistent direction for all involved.

Indicators:

a. All participants can articulate the common purpose.
b. The use of time, materials, and professional development activities are aligned with common focus. Learning goals are developed and prioritized according to district and local guidelines.
c. There is a commitment to long-range, continuous improvement.
d. The common focus is directly related to assignment of staff time and resource allocation.
e. All staff can articulate how the school is improving student learning.
f. Professional development reflects the standards of the relevant professional.

- **High Expectations for Success:**

In the effective school, there is a climate of expectation in which the staff believe and demonstrate that all students can attain masterly of the essential content and skills, and the staff also believe that they have the capability to help all students achieve that mastery.

Indicators:

Instruction is focused on high expectations that implements powerful teaching and learning strategies including action inquiry, in-depth learning, and performance assessments.

a. Staff is consistent and purposeful in cross-grade-level conversations that result in an alignment of the curriculum within and among the content areas.
b. Staff focuses on commonalities that cut across grades and subjects.
c. All students participate in and can master academically rigorous courses.
d. There is a clear link between student assessment and instructional activities.
e. Teachers focus on competence, not coverage. Students are aware of expectations, produce quality work, and present to real audiences.
f. Expectations connect to the real world, and students are role models and peer educators (Partnership for Learning).
g. Staff and students articulate their belief in their capacity for success.
h. Instruction is personalized and encompasses a broad, concerted, and systematic emphasis on motivation as well as knowledge and skills.

- **Instructional Leadership:**

In the effective school, the principal acts as an instructional leader and effectively and persistently communicates that mission to the staff, parents, and students. The principal understands and applies the characteristics of instructional effectiveness in the management of the instructional programme.

The planned and actual curriculum is aligned with the essential academic learning requirements. Research-based teaching strategies and materials are used. Staff understand the role of classroom and state assessments, what the assessments measure, and how student work is evaluated.

Indicators:

a. Curriculum is aligned with state and local requirements.
b. Adopted curriculum materials and models are research-based.
c. Instruction is focused on high expectations.
d. Instruction materials There Instruction is a clear link and is modified based models are research-based.
e. Personalized and between student on student achievement data.
f. Encompasses assessment broad, concerted curriculum and instructional activities.
g. Students are directly involved in the assessment of their learning

- **Frequent Monitoring of Student and ogress:** In the effective school, student academic progress is measured frequently. A variety of assessment procedures are used. The results o$ the assessments are used to improve individual student performance and also to improve the instructional programme.
- **Opportunity to Learn and Student time on Task:** In the effective school, teachers allocate a significant amount of classroom time to instruction in the essential content and skills. For high percentage of this time students are engaged in whole class or large group, teacher-directed, planned learning activities.
- **Safe and Orderly Environment:** In the effective school, there is an orderly, purposeful, businesslike yet joyful atmosphere which not oppressive and is free from conducive the threat to teaching and learning.
- **Home-School Relations:** In the effective school, parents understand and support the school's basic mission and are given the opportunity to play an important/ role in helping the school to achieve that mission.

5.1.2 Classroom Climate and Teacher Attributes:

The classroom climate is a reflection of students' opinions of their academic experience (Reid & Radhakrishnan, 2003). This includes students' perceptions of the rigor of the class, their interactions with their instructor and class peers, and their involvement in the class. Although each student will develop his or her individual sense of the classroom environment, there is also a community, or collective, sense among the students and the instructor, so the classroom climate is a general feeling shared by all in the class (Fraser & Treagust, 1986). Students' perceptions often define the classroom climate because their

exposure to multiple learning environments and their many opportunities to form impressions give them a credible vantage point from which to make judgments (Fraser & Treagust, 1986). Some researchers have attempted to define and measure classroom climate in higher education. For example, Fraser and Treagust developed the College and University Classroom Environment Inventory (CUCEI) to assess students' and instructors' perceptions of actual and preferred classroom environments. Administration of the 49-item CUCEI to 372 students and 20 instructors in 34 classes found seven internally consistent dimensions of the higher education classroom climate:

- Personalization. The instructor provides opportunities for student-to-teacher interaction and expresses concern for students' welfare.
- Involvement. The instructor encourages active student participation in class.
- Student cohesiveness. Students know one another, help one another, and are friendly toward one another.
- Satisfaction. Students enjoy class.
- Task orientation. Class activities are clear and well organized.
- Innovation. The instructor utilizes unique teaching methods, activities, or assignments.
- Individualization. Students are permitted to make decisions and treated differentially based upon ability and interests.

A. Need of a classroom climate:

The teaching-learning process is an inherently social act, and as instructors we need to be mindful of the quality of the social and emotional dynamics in our course, because they impact learning and performance. In fact, a well-established body of research has documented the effects of a "chilly classroom climate" on some students or groups of students, in particular women and other minorities.

- Stereotypes may cause alienation and marginalization among those who are the target of unfair generalizations. Students who have experienced stereotypes or expect to be viewed or judged in a certain way may encounter tensions and cognitive disturbances that interfere with learning.
- Instructors can influence the tone of the class environment through their interactions with students and other modes of communication, including the syllabus.
- Student-student interactions both inside and outside of class can affect the overall climate. How the instructor addresses negative interactions will have an impact on student learning.
- Course content that includes a variety of perspectives or that represents multiple views is more conducive to a positive climate teacher Attributes.

5.1.3 Rewards and Punishment/Order and Discipline:

Reward is defined as an action or attitude to respect, in order to ensure that students successfully participate and perform well. Students are rewarded for some desired outcome, while inappropriate behaviors are disregarded. Rewards may include items such as cookies, sweets, extra time off, no homework, among others.

Teachers can also use a pleasant smile, a nod of approval or a pat on the back to strengthen positive behavior. It should be praised when students have done good social or academic work and should not be overdone. All that is necessary is an easy 'Great Job, guys.' Students are aware that it is an honest appreciation and they are trying to build their behaviors and activities so that they are honored by a teacher. Praise gives a good feeling for students.

Rewards for some behaviors are tangible items. Rewards can make students happy, as states that there are various advantages of rewarding students in teaching, including: firstly, students will become happy to learn and indirectly try to be the best. Secondly, the teachers and students will have a good relationship to make students feel comfortable learning. Third, it trains students to be more enthusiastic and to study. Fourth, it enhances students ' learning abilities and skills.

Happy students would lead to be successful students. To make sure that students are happy in the classroom, teachers could apply a reward and punishment system. This is intended to motivate students to learn both at schools and at home. It is generally understood that the rewards system would come with a sense of pride among students. This positive atmosphere would lead to achievement among students. In other words, the reward system has motivated them to be more successful.

The most effective rewards are those 'that are motivated the learner intrinsically. This is because human’s action and or behavior normally derive from the desires or needs from within oneself. In other words, the actions and behavior themselves are self-rewarding. For this reason, people actually do not really need externally driven reward for their achievement.

Meanwhile, punishment in education is an alternative response from teachers to a lack of discipline or misbehavior. Punishment is like strengthening, because it defines both its effects. States that there are two kinds of punishment, positive and negative punishment. When it comes to positive punishment, it is generally happened when a positive contingency is eliminated. "An example of this may be a penalty. It is often referred to as elimination punishment.

Furthermore, negative punishment happens "when a negative contingency follows a behavior ". This is when they think of the idea of punishment. Many people sometimes refer this term to be presentation punishment. Describes punishment as an action that can decrease the frequency of unwanted action or behavior. Outlines the benefits of punishment. The first is restricting unwanted behavior. Punishment prevents unexpected behavior from being repeated. Secondly, there is an educational reason to educate the students to behave properly. Third, punishment may increase the motivation of students to have the expected behavior. Fourth, the control of punishment to prevent undesirable behavior for students, to facilitate the learning process.

i. Types of Reward:

There are some types of rewards mention in the existing literature. For instance, divides the reward to be positive and negative reward.

- **Positive Reward:**

A positive reward is an indefinite expression of appreciation, a sense of accomplishment, or conscious satisfaction. For example, you know you have done something right or have helped others to improve their day. Since the intrinsic rewards are intangible, they generally appear from the person who performs the activity or behavior. In this case, intrinsic means that the reward is inherent to the person performing the activity or behavior. As an example, your teacher gives you some cookies every time the homework is completed as a reward. In that case, you will be more likely to do the homework and repeat this actions in the future, thus enhancing the behavior of completing the homework.

- **Negative Reward:**

The elimination of an unpleasant reinforcement can also reinforce behavior. This is referred to negative reinforcement because it removes an adverse stimulus that rewards the animal or person. Negative reinforcement strengthens behavior because an unpleasant experience is stopped or removed. If the students do not complete the homework, for instance, giving some cookies to the teacher might change the students' perception. So in the future, the students will complete the homework to avoid giving some cookies, thus strengthening on homework's behavior.

Moreover, regards reward or reinforcement is an endeavor teachers can do to increase the frequency or a behavior rate of the students by means of showing or introducing a short stimulus after displaying the behavior. An activity that intensifies the possibility of the behavior changes is referred as a reinforcement. There are two types of reinforcers: positive reinforces and negative reinforces. Positive reinforcers are favorable encouragement that are given after the behavior has been shown.

Through the addition of something, positive reinforcement strengthens the probability of a behavior. Example: You have been studying hard and have an A in your Math exam. By treating you to your favorite restaurant, your mother rewards you. You study hard again after this and have an A in your History exam as well. By going with you to see a movie you like, your mom rewards you. For your next examination, you study hard once more.

Negative reinforcers, on the other hand, are the reduction of unfavorable stimuli after the behavior has been shown. In the case of negative reinforcement, the behavior or response is intensified by the removal of something. Example: at 8 a.m. you leave home to drive your way to work, and you always encounter heavy traffic. You leave your home earlier than the next day, causing you to avoid heavy traffic. Leaving home earlier than 8 a.m. in the next few days and keep avoiding heavy traffic. This implies that the impact of getting to avoid heavy traffic intensifies your behavior of leaving home earlier than 8 am.

A. Kinds of Rewards:

The reward system has been shown to be closely correlated to academic performance. States that types of rewards include praise, symbolic rewards, token rewards and tangible and activity rewards.

- **Praise:**

The most popular form of reward is a verbal praise offered to students by the teachers; it means applauding the students when they act in a positive way. It shows that the teacher is satisfied with the achievement of the students. The display of a behavior pattern, such as perseverance, compassion, courage, or general intelligence, could be that behavior. Praise may also be used to compliment academic achievement, sporting or group accomplishments. In offering praise, it would be better to offer it immediately, so the emotional impact of the action is still visible. In addition, with praise, be specific. The teacher should let the student know the reason why those actions were admirable, then it would be meaningful for the students.

- **Symbolic Rewards:**

Symbolic rewards are rewards in the form of items reflecting an outstanding display of behavior or certain achievement. Gold star, perhaps the most typical type of symbolic reward given by the teacher. Others may include the name of the student or their pictures on a bulletin board or poster. Symbolic awards work similarly to praise the outstanding one in front of public displays of favor. The golden star or photograph on the bulletin board declares that the student has done something great. Unlike praise, symbolic awards have the potential to last longer than a single spoken word and can act as a reminder for students to uphold their good standing since it will be displayed in certain period of time and can be seen by many other students.

- **Token Rewards:**

Tokens reflect a value tangible reward or a type of currency. Tokens can be exchanged for a prize provided by the teacher. Chips and point tallies are common tokens, and they can be kept either by the teacher or by the students. A strict system for the allocation of points should be in place, and then the ethical and reasonable prizes can be redeemed. For instance, prizes could be priced for the students according to their value: a free homework pass could be worth 5 chips, while unlimited water fountain privileges could cost 15 chips for a month.

- **Tangible and Activity Rewards:**

Tangible rewards and activity rewards are prizes that the teachers deliver directly to the student, with no the step of symbols or tokens in between. It is a positive behavior or accomplishment award for the students with desirable achievement. The teacher would prepare physical things such as toys, supplies for school or other physical objects. While intangible prizes are activity rewards that give more satisfaction on the students, such as becoming a line leader or the teacher's assistant, being a team leader during activities or having certain privilege that singles out the student from others.

B. Function of Reward:

The use of rewards in the classroom situation helps teachers improve student motivation in learning. Reward provides information about one's abilities when related to real success or

development, such as when an instructor commends students for learning new skills or gaining new knowledge. Points out that classroom rewards can be beneficial. Referring to the above argument, when a teacher offers a reward, students can be correlated with behaving and acting in a feeling of pleasure. Typically, students are going to do something that constantly activates reward. Besides, reward is intended to make students do all they can to raise the score more faithfully. Rewards can be a successful way to inspire students to do so which motivate the students to become involved in learning.

ii. Types of Punishment:

Educators often select punishments if the students do not follow the rules after setting out the rules at the beginning of the year and listing the punishments. Penalties or consequences usually involve holding something that students enjoy. A disruptive may, for example, be held in recesses or detained after school. A student who often distracts his peers will be disappointed if he knows that at the end of this month he will not receive class treatment. Mentioned that there are two kinds of punishment: positive and negative punishment. The difference between the two might be difficult to tell.

- **Positive Punishment:**

Positive penalty is a penalty which aims to lower the rate of any unwanted behavior. The concept works by presenting the individual with a certain negative impact once an unwanted behavior has been shown. If a person has a negative effect, in the future the person is less likely to repeat the same behavior. Some good punishment is that students who do not do their homework, clean the public facilities or garden for their lateness.

- **Negative Punishment:**

Negative penalty is part of the deterrence, and often helps to lower the rate of any undesirable behavior. It works by removing certain favorite objects from the life of the person. When a certain desired stimulus/ item is eliminated from the life of an individual, the undesired behavior is shown, and there is less chance of the behavior occurring again in the future.

The word 'negative' sounds very repetitive, because punishment is often the product of negative outcomes. As positive punishment tends to add a stimulus to the individual's life, negative punishment means eliminating a certain favorite object or stimulus from the individual's life. Such examples of negative discipline are tossing away students with an eraser if they're noisy, threatening students with rulers if they don't follow the rules, and excessively irritating students for no apparent purpose.

Meanwhile, points out that positive punishment means adding something that triggers the reduction in the repetition of behavior shown. Negative penalty, also known as deletion fines, occurs when a behavior occurs after a positive occurrence or consequence is eliminated. Example: a child teased his sister, making her cry so loudly. Because of this, his mother spanked him. The boy has never mocked his sister again. On the other hand, it is the removal of something that is favorable, in order to reduce the recurrence of the behavior.

Example: A teenager is caught cheating on a test. Then his parents forbid him to use car and cut his allowance. The teenager is no longer cheating on his current exams.

A. Kinds of Punishment:

Divides punishment in four:

- **Psychical Punishment:**

It includes slapping, pinching, and hitting. For centuries, this type of punishment has been applied mostly in the field of non-education. At present, this kind of punishment is rarely applied in the field of education. Except for gym classes, this kind of physical exercise is rarely used. In fact, this is a good punishment to make students avoid some kind of misbehavior. Also, this punishment may scare students from failing to achieve the objectives.

- **Words and Sentences:**

This kind of punishment includes some homework or written assignments that students have to as a penalty of misconduct they have committed. Summarizing certain pages of a book, for instance, is a kind of words based punishment.

- **Stimulus Psychical Punishment:**

The teachers commonly give this kinds of penalty immediately to the students. In class, some students may engage in misbehavior in such a way that the teacher uses physical stimulus punishment, such as the use of slope, wide-opened eyes, and glum expression to threaten (punish) students toward their actions.

- **Inconvenient Punishment:**

Teachers can use this form of discipline to make the students feel uncomfortable, such as asking the students to stand up in front of the classroom, leave the classroom, stand or sit beside the teacher. Writing a sentence and rewriting for 10 or more times may be another option for the teacher. This is intended to make the students consider about their wrongdoing.

iii. The Effects of Rewards and Punishment:

Some studies have been conducted in several contexts investigating the effects of reward and punishment on students' learning. A study was done by looking at several aspects of rewards and punishment practiced by teachers in Surakarta. In his research, the award was given because the students had shown progress in their efforts by giving some interesting gifts, applause and expression and a high score to the students. Regarding the punishment implementation, kinds of punishment implemented were self-introduction in front of the class, singing in front of the classroom and squad jump. The punishment given because the

students less than the maximum for his efforts. This study further reveals that giving rewards and penalties provide contribution in teaching English and have automatically get positive responses from the students. Because of the rewards and punishment, the students have been more enthusiastic in learning. They found learning activities as fun, happy and exciting. They also looked more motivated and more diligent to study English. However, the students' responds on the use of punishments in teaching English, students are embarrassed, students are less optimistic and worried about it.

Another study was conducted by from Lunghwa University of Science and Technology, Taiwan, ROC. He looked at how rewards and penalties affect the motivation of students involved in the learning process and changes their behavior. The objectives of this research was also to examine the characteristics of reward and penalty systems in four schools in the Philippines and the perception of students about the effectiveness of systems currently in use.

The participants of the study were the first-year high school Chinese students. Questionnaires, interviews and observations were used to gather information about the participation of the students with learning, social control, and rewards and punishments policies. Results revealed that, although the school policies managed to link the rewards and penalties system to a positive discipline strategy, the emphasis in practice often seemed to be on punishments for bad behavior rather than increasing engagement and motivation. Students tended to see rewards strongly linked to work and penalties for behavior also conducted a study on the application of rewards and penalties for motivating junior high school students to learn English in Bandung.

The data were taken from interviews, observations, and questionnaires. This study shows that the teachers' kinds of rewards in English learning were verbal and tangible rewards. Whereas punishments were practiced in the forms of verbal, action, and penalty punishments.

This study also indicated that the students responded positively to rewards and penalties when they were properly delivered. The result shows that when rewards were properly applied, the motivation of students could be enhanced. In addition, the proper implementation of penalties may also improve both the student's discipline and the enthusiasm for learning English. This study suggests that the appropriate use of rewarding and giving penalties might be an alternate solution to enhance student motivation. Another study by also indicate similar findings that rewards and punishment did well in motivating students to have higher achievement.

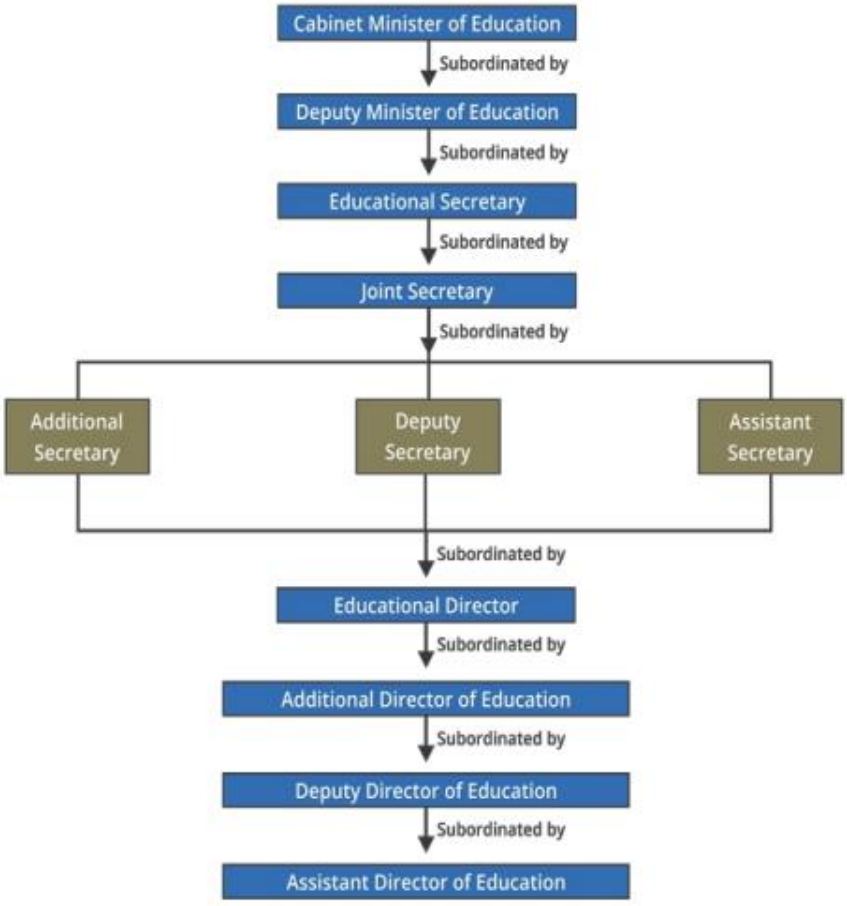
Although many studies show that the use of rewards and punishment has shown lots of benefits in improving students' motivation and achiement, as study by reminds us that the effects are just temporary. His study investigated the use of rewards and punishments and how these have impacted motivation of 25 6^{th} grade students at elementary schools in Phoenix, Arizona. The study revealed that students' behavior changed or returned back to its initial state when the teacher did not provide rewards and punishments anymore. Again, this study shows that the effects of rewards and punishment should be maintained with some follow up learning activities.

5.1.4 Law and Order in the Society and its Effect on School.

5.2 Types of schools within different administration bodies-State Government, CBSE, CLCSE:

5.2.1 Educational Administration, Management and Governance at State Level:

The states of India have their separate ministries for education. The ministry for education of a particular state consists of a cabinet minister followed by a state minister. The state governments also formulate policies for education. There is also provision of acts and bills in the state legislature. These are brought whenever necessary. The minister is responsible to present the bill in the State Legislative Assembly for receiving grants and aids. At state level, educational administration is structured as shown in the given figure:



Structure of Educational Administration at State level

Figure 5.1: Structure of Educational Administration at State Level

The following are the responsibilities of the State Government regarding School Education:

- To establish and maintain educational institutions.
- To recognize for the establishment of schools.
- To provide grants to schools managed by| private governing bodies.
- To pass laws for different types of school education.
- To supervise school through DEO's and Supervisors at Block level.
- To recruit and place teachers in schools.
- To prescribe the syllabus and supply books.
- To establish school boards to conduct examinations.
- To provide special assistance to poor and backward students.
- To organize training programmes for teachers and supervisors.
- To initiate action against teachers and schools in case of any lapse.
- To feed information to the centre about schools. Role of State Governments in Educational Financing: The Finance Commission transfers adequate resources at the end of each Plan to each State under:

a. Share in Income-tax,
b. Share in excise, and
c. Lump-sum grant-in-aid.

The state recognizes schools and other institutions run by private bodies in accordance with set rules and regulations. It also provides them with suitable aids and grants to run efficiently and effectively. Financial aid is also given to Universities, functioning in the state.

A. Educational Administration, Management and Governance at Local Level:

The responsibility for governance of school education was largely given to state governments. Thus, decentralization in public governance in general, and in education, in particular has consisted of moving decision making powers to structures and authorities at sub-state levels. For successful implementation of decentralization, the main issue seems to be the establishment of institutional mechanisms below the state level.

It is in this context that the concept of Panchayati Raj and the community development frameworks were adopted in the years after independence. The local self-government system under Panchayati Raj is conceived to consist of three tiers of political-administrative structures beginning at district level through the block level and the village level. This is also viewed as facilitating the emergence of grassroots democracy involving people in local electoral process.

While political decentralization was to follow this framework, it was deemed appropriate to designate block level as the main unit for development administration. Thus, a Block Development Office was established in each block consisting of 100-150 villages. The district, which was the revenue division created during the British period remained more or less intact. The basis of local administration is decentralisation, and what is needed is that local administration should be strengthened and made effective.

Within the education sector, to begin with, the District Education Office remained the main centre of governance of school education in the district. After nearly 30 years of this set up, a separate office of the School Education Department came into existence at block (sub-district) level in many states.

This was partly due to the enormous expansion of the primary education system during the preceding two decades. The Block Education Office now deals with elementary primary education in many states, while the District Education Office directly governs secondary education

B. Administrative Structure of Educational Administration as Recommended by Kothari Commission:

Kothari commission has recommended educational administration mechanism at local level in which The Deputy Director School Administration includes District Education Office which corresponds to District School Board at District level.

Next in the hierarchy comes Block Education office which corresponds to Block School Committee at local level.

- **Functions of Panchayat Bodies:**

Functions of panchayat bodies related to education have been mentioned in a number of sections in the PRI (Panchayati Raj Institution) Act 5. Some of the recommendations made in the Act are:

i. The Gram Sabha (village council) will run the adult education programme in the village. It is interesting to note that no mention has been made regarding the role of Gram Sabha in other aspects of education.
ii. Gram Panchayat (local self-governing body at the village level) will provide education through primary and middle schools, create awareness among the people and ensure enrolment of all the children in the primary school, construction and maintenance of hostels, etc.
iii. Panchayat Samitis (block level bodies) are expected to perform a variety of functions particularly with respect to elementary education. These include the promotion of primary and secondary education, the construction and maintenance of school buildings, and the provision of education for working children.
iv. Roles identified for Zilla Parishad (district level body) include the construction of roads to connect all the schools and colleges in the district; the construction and maintenance of primary and secondary schools; the construction and maintenance of hostels, ashram shalas (residential schools), etc.; the provision of scholarship/ maintenance grants; the construction of schools and hostels for Scheduled Caste, Scheduled Tribe and Other Backward Caste students; and the provision of free textbooks and teaching and learning materials for these groups. It is also specified that permanent committees of the Zilla Parishad could be constituted for different sectoral areas, with one such committee, the Education and Health Committee, which would look after all the functions related to education.

- **Role of Local Bodies:**

In 1952, Kher Committee of the CABE strongly recommended that "in the interest of mass education and in view of the constitutional directive on universal, compulsory and free primary education. Thus, after independence, the role of local bodies in primary education has become more and more active.

The recommendations of the Kher Committee were not universally adopted by all the states. Even after the reorganisation of the states in 1956, education is administered by the state governments in some states while in others responsibility for primary education has been entrusted to local bodies. For meeting expenditure on account of these responsibilities, the school committee should receive:

a. A certain proportion of the income of the local village panchayat; and
b. A grant-in-aid fixed on the basis of equalisation, i.e. a larger grant being given to poorer areas and a smaller grant to richer areas.

C. Administration of the Education System at Primary and Secondary Level Secondary education

At the state level, it is usually the Departments of Education that administer secondary education. At the national level, the Kendriya Vidyalaya Sangathan, New Delhi runs the Kendriya Vidyalayas (Central Schools) while the Navodaya Vidyalaya Samiti, New Delhi runs the Navodaya Vidyalayas, i.e., schools for talented rural children, The Central Board of Secondary Education (CBSE),

New Delhi functions under the overall supervision of the Department of Education, Ministry of Human Resource Development, Government of India. It deals with activities related to affiliation, academics and examination, and is known for introducing innovations and reforms at the secondary and senior secondary levels so as to bring education at par with international standards.

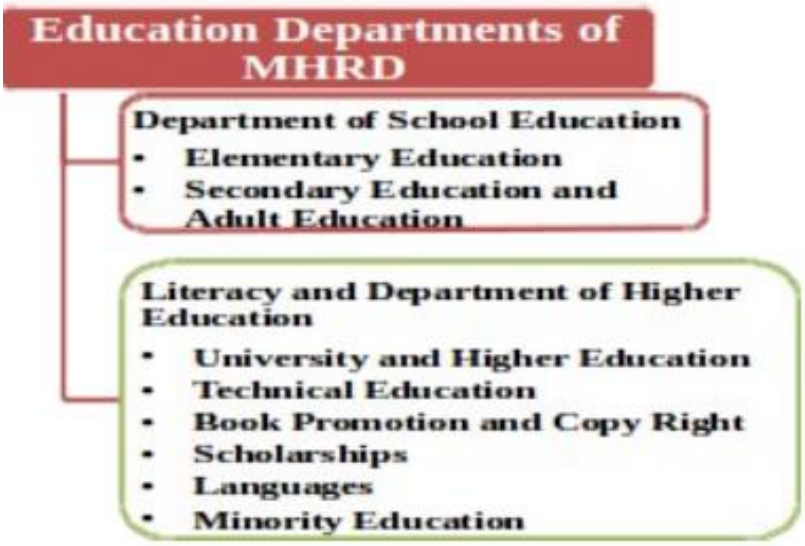
5.2.2 CBSE:

A. Educational administration, management and governance at Central Level:

Ministry of Human Resource Development (MHRD) is the main governing agency of Government of India at central level it was renamed from Ministry of Education in 1985. It is responsible for all matters pertaining to education including overall planning of programmes and providing guidance for their implementation.

This ministry is responsible for educational development of the country. The ministry has two departments namely Department of School Education and Literacy and Department of Higher Education.

Logo of MHRD



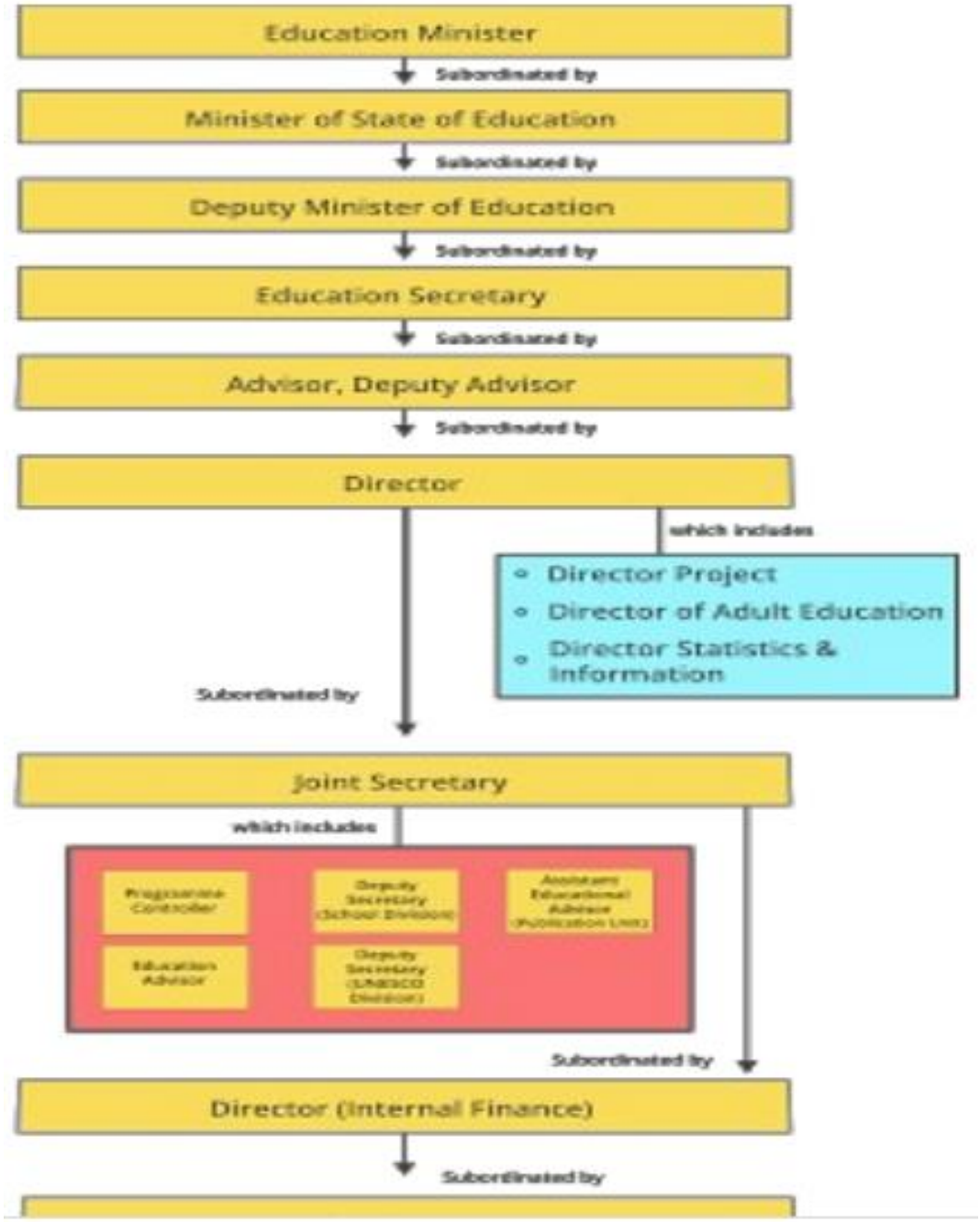
Education Departments of MHRD

Figure 5.2: Education Department of MHRD

The Ministry of Human Resource Development (MHRD) is headed by a Cabinet Minister of the Union Government. The department of education, under the Ministry of Human Resource Development (MHRD) is under the charge of a Minister of State who is advised at the official level by the secretary to the department, assisted by an additional secretary and Educational Advisor on academic and policy matters of education.

The DOE consist of several bureaus, each of which is headed by a Joint Secretary on Joint Education Advisor. These officials are assisted by Directors, Deputy Secretaries or Deputy Education Advisors, who are the divisional heads. In terms, they are further assisted by Under Secretaries or Assistant Educational Advisors, who have one or more sub-divisions under them.

The structure of Educational Administration at Central level is shown in the figure given below:



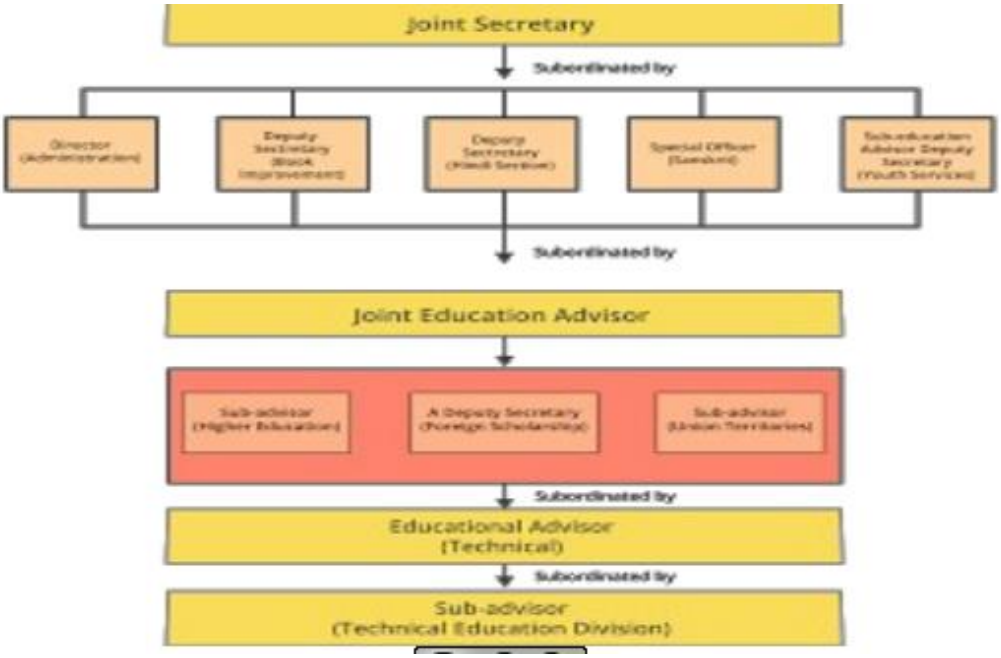


Figure 5.3: Structure of Educational Administration at Central level

B. Role of Central Government in Educational Financing:

Since independence, the Central Government has started spending increasing amount of money on education. The Central Govt. gives grant-in-aid to states, universities and special institutions in order to help them to discharge their educational obligations. It gives special grants to backward states in order to equalize them with other states. It finances the centrally administered areas and gives scholarships and stipends under the various scholarship schemes. The contributions of the Central Government and State Governments have increased from time to time. Following are the important reasons for this increase:

- The Central Government must assist the backward states for providing better educational opportunities.
- The Central Government must assist the state in realizing the constitutional provisions for providing compulsory primary education in the age group 6 to 14 years.
- The Central Government has large resources for collecting finances.
- Central funds must be utilized for providing equality of opportunity.

The Central Government assists the states for educational development in three ways:

- Central Government performs educational functions through NCERT, UGC, Central Universities, Central School organizations, etc.
- Central Government sponsors schemes fully financed by it but implemented by the States.
- Central Government partially finances some programmes, planned and implemented by the State Governments.

At the central level, the direction of the educational policy is in the hands of Central Education Advisory Board, which is headed by a famous educationist and educational administrator. The central government has also set up some specialist institutions for encouraging education in the country which are given as below:

Table 5.1: Institutions and Organizations of the Central Government CLCSE

List of Institution and organization which assist and advise the Central Government
1. Central Board of Secondary Education, New Delhi (CBSE)
2. Central Hindi Directorate, New Delhi (Kendriya Hindi Nirdeshalaya)
3. Central Institute of Indian Languages, Mysore
4. Central Institute of English and Foreign Languages, Hyderabad (CIEFL)
5. Educational Consultants of India Ltd., New Delhi
6. Kendriya Vidyalaya Sansthan, New Delhi (KVS)
7. National Council of Education Research and Training, New Delhi (NCERT)
8. National Council of Teacher Education, New Delhi (NCTE)
9. National Institute of Adult Education, New Delhi
10. National Institute of Public Cooperation and Child Development, New Delhi
11. National Institute of Open Schooling, New Delhi (NIOS)
12. Navodaya Vidyalaya Samiti, New Delhi
13. All India Council of Technical Education, New Delhi (AICTE)
14. University Grants Commission, New Delhi (UGC)
15. National Institute of Education Planning and Administration, New Delhi
16. National Sports Authority of India, New Delhi
17. National Literacy Mission, New Delhi
18. Central Advisory Board of Education (CABE)

5.3 Roles and Responsibilities of Education Functionaries:

The structure of educational administration at the district and sub district level includes the structure, both at rural as well as urban level. Every district has panchayat standing committee which includes panchayat representatives of block panchayats which further include members of village panchayats.

The district panchayat committee is sub-coordinated by the district education officer (DEO) which is further coordinated by the district project coordinator for project management at district level. Each district is divided into small blocks. Block is a group of villages. Each block has its own block panchayat standing committee further coordinated by the block education officer and the projects related to education are managed by the block resource centre. At the village level structure of educational administration includes village panchayat sub coordinated by assistant education officer which further has cluster coordinator to manage projects.

At village level, village education committee has mother teacher council. A host of institutional structures between the district level and the schools have been set up in the last one decade to strengthen the schools as well as the curriculum framework, namely:

- Block Resource Centres
- Cluster Resource Centres
- District Institutes of Education and Training

Block Resource Centres (BRCs) and Cluster Resource Centres (CRCs) were established in each block of every district under Sarv Shiksha Abhiyan to conduct in-service teacher training and to provide academic support to teachers and schools on a regular basis as well as to help in community mobilization activities.

5.3.1 Roles and Responsibilities of BRCs and CRCs:

Block Resource centres and Cluster Resource Centres perform many important academic functions: (a) Development of the centre as a rich academic resource with ample reference materials for the teachers. (b) Development of strong human resource pools (by inviting resource persons) including nearby teacher education institutions, NGOs, Colleges/ Universities and resourceful individuals and to form Resource Groups in different subject areas for primary and upper primary level. (c) Regular school visits for addressing emerging development and pedagogic issues of school. (d) Organization of teacher training and monthly meetings to discuss academic issues and design strategies for better school performance. (e) Setting up of performance indicators to track and enhance school performance. (f) Consultation with community members and Panchayati Raj Institutions to strive for school improvement. (g) Designing a Quality Improvement Plan for the block/ cluster as per the SSA goals and strive to achieve that in a time bound manner. (h) Monitoring the progress of quality using Quality Monitoring Tools in collaboration with, DEO's DIET's. level are held and periodic visits to schools are made by CRC Coordinators to monitor teachers' performance and to provide them on–site support. In nutshell, role of BRC/CRC is a mixed set of academic, supervisory, managerial, networking and creative activities; it goes beyond routine monitoring and supervision work as it encompasses providing support to schools and teachers through teacher training and teacher mentoring for their professional growth, strengthening community school linkage, providing resource support and carrying out action research.

5.3.2 Roles and responsibilities of DIETs:

District Institutes of Education and Training or commonly known as DIETs: These are considered as a nodal agency at the district level for planning, implementing and monitoring pedagogical activities in the entire district. There are some major functions of DIET:

- It plans short-term training programmes for teachers of elementary schools of the district after ascertaining the needs of the teachers.
- It conducts training programmes for the teachers, BRC & CRC Coordinators and School inspectors.
- It conducts action research studies and takes up corrective measures.

- It provides resource support to BRC & CRC Coordinators and teachers in schools.
- It reviews block and cluster level performance of teachers and resource coordinators.
- It monitors pedagogical activities in the district and plan for qualitative interventions at all levels.

The DIETs would therefore support school improvement through:

a. **Overview and Coordination of School Improvement Plan –** The DIET would supervise the performance of the block and cluster personnel and guide the specific approach(s) chosen in their district. They would support the BRC's to overcome challenges that come in implementing programs for school improvement in accordance with the chosen approach.
b. **Design and Delivery of Training –** DIETs would be linked closely to the BRC-CRC so that the design and delivery of training is what the teachers require and need. This requirement can be collaboratively defined by the DIET, the BRC training co-ordination unit, the CRPs, expert groups and the teachers. The approach to training needs to change. The teacher needs to explore, reflect on and demand training instead of a one-size fit-all approach decided solely by the state. The block resource centre coordinator (BRCC) and cluster resource person (CRP) can help identify training needs and schedule the sessions along with the Master Resource Persons and other experts. Further, the training sites might be varied. Training can take place at the DIET or the Block or the Cluster or within a school. This will forge stronger links between the DIET and the Block and also ensure a two way communication.
c. **Database of Experts –** The DIET may become the nodal centre that maintains a database of experts available at the District, Block or Cluster level that can be called on from time to time. Therefore, there is a need for an administrative coordinator at the DIET level who will work with the BRC to help co-ordinate and conduct the trainings at various sites and also network with experts from the field.
d. **Development of Master Resource Persons (MRP) Pool** – MRP pools need to be nurtured through developing subject expertise, pedagogic ideas and training of task related skills. DIETs could play a role in strengthening such MRP pools at the district level.
e. **Resource Center for District –** Similar to BRC, becoming a knowledge resource center at the block, the DIET could contain a wider range of materials for teachers, teacher educators, students, Resource Persons and resource groups for the whole district.
f. **Human Management Training –** DIET could provide trainings designed for Human Management Professionals (HMs). These trainings would be different from those given to teachers.

5.3.3 Roles and Responsibilities of Urban level Education:

In the case of urban areas, the educational administration is taken care of by urban Local Bodies, either called Municipalities or Town Panchayats depending on the size of the urban area. In the context of the present discussion, it is relevant to look at the administrative divisions under the following segments in urban area, these are:

a. Directorate of Elementary Education
b. Directorate of School Education
c. Sarva Shiksha Abhiyan (SSA)

a. Directorate of Elementary Education: Against the above mentioned background, the administrative set up under the Directorate of Elementary Education is such that all primary and middle schools in district fall under the Director of Elementary education. There is a Chief Education Officer (CEO), under whom 2 or 3 District Education Officers (DEO) function to control schools that comes under the district. Inspectors who visit schools take care of the teaching-learning aspects in the schools that fall under their jurisdiction. Government teachers who hold the direct link between the government and the children convert classroom policy into action.

The Chief Education officer acts as an Educational Advisor to the Municipal Commissioner. Some of the important duties of the chief education officer are as follows:

- To have overall control, supervision on various sections and activities of the Education Department namely, a) Municipal Primary Schools b) Secondary Schools c) Training College d) Research Section e) Music and Art Academy f) Aided Schools g) Physical Education h) Municipal Teacher's Libraries i) Teaching Aid Center j) School Feeding Program k) Vocational guidance Section.
- Appointing authority of Secondary Grade and Specialist Teachers
- Counseling Chairman for Elementary School teachers appointment and transfer.
- Staff fixation for aided Schools
- Visiting the Schools
- Authority for administrative reasons
- Granting permission for the appointment of aided school teacher
- Works as an Administrative Officer and Education Officer at District level.
- Sponsoring Educational activities and Social Awareness Programmes at District level

The District Education Officer or DEO controls the whole district with regard to Education. He manages, guides, hears and redresses the complaints of the teachers, other staff and general public. All the duties by the teachers and other staff are compiled under the name of District Education Officer. Each district has three DEOs, as there are separate DEOs for secondary schools and for boys/ girls elementary schools. DEOs perform wide-ranging duties and appear to be the most exhaustively deployed officials in the district. They are required to personally visit each school within the district at least once every year. They are also required to regularly meet all Head Teachers in the district not only to keep themselves abreast of developments in schools, but also to motivate and guide Head Teachers in discharge of their responsibilities. The DEOs are responsible for registering and monitoring private schools, cross checking bills for financial payments, preparing budget estimates, preparing district development programs, maintaining school buildings, ensuring that school syllabus is covered fully and on time, and responding to Assembly questions.

The next official in the hierarchy is **The Deputy Education Officer** who works under the guidance of Dist. Education Officer and comply all the duties which are given by the Dist. Education Officer. They assist the DEOs in discharge of their functions and implement a

more intensive inspection regime. Each Deputy Education Officer is required to inspect all middle schools at least thrice every year and at least 25% primary schools once a year. They evaluate performance of Head Teachers in their area of jurisdiction, sanction their bills and exercise overall superintendence over their work. As such they comprise the functional tier at the district level. They also carry out literacy campaigns.

Deputy Education Officers are assisted by Assistant Education Officers, who are the field officials in the district education hierarchy. AEOs are responsible for monitoring of schools to check teachers' attendance, student enrolment and condition of school buildings.

b. Directorate of School Education:

Similar to the Directorate of Elementary Education, the administration under the Directorate of School Education goes on from the Director of School Education (DSE) on top to each Chief Education Officer (CEO) posted in the districts, to the one or more District Education Officers (DEOs) posted in every block of a district depending on the size of the blocks, who then in turn directly deal with the primary and middle schools in their district with the help of school inspectors, head teachers and teachers. The functions and processes remain same as discussed earlier.

c. Sarv Shiksha Abhiyan (SSA):

The District Programme office is headed by district programme officer and he shall be appointed by the Executive Committee of SSA. He shall have the same powers and responsibilities in relation to the project at the district level as the State Programme Director has at the State Level. He shall set up Steering Groups for each programme component and functional area. The Head of the Steering Groups will together constitute the District Level Committee (District Task Force) which shall work as an organic team for furthering the project at the district level.

Functions of the District Programme Office:

- The District level committees are responsible for planning, implementation and monitoring the SSA programme in the districts.
- Orienting the lower level structure/committees in micro planning, school/village mapping, plan formulation and target fixing.
- School/ village level plans are to be consolidated at cluster level and block level and incorporated into the district plans – Annual and Perspective District Plans.
- Block and village specific goals and targets and area specific programmes and strategies to achieve the same have to be formulated and monitored. To review progress and status on enrolment of retention, dropout rates etc. block wise.
- Implementing approved plan activities as per the calendar. Monitoring programme implementation through periodical reviews, visits to schools Block Resource Centre (BRC) and Cluster Resource Centre (CRC).
- Maintaining and updating household data and school information for cent percent enrolment and compilation at the district level.
- Distribution of grants to various agencies and monitoring the proper and transparent

utilization of grants released.

- To identify critical infrastructure requirements and plan to bridge the same. Monitoring the progress and quality of Construction works undertaken in the districts.
- Organizing awareness campaigns, district level functions. Monitoring the proper distribution of various incentives to children
- Securing the coordination and cooperation of other agencies like, NGOs, self-help groups, Government Departments, etc. for enrolment, tackling drop outs, achievement levels and quality of education.
- Supervising the training programmes at the district and blocks and assessing the impact of the training.
- Conducting research activities both formal and action research through SSA personnel and research scholars, in the districts.

5.4 Relationships between Support Organizations and the School:

Organizations as a social system could keep on their existence as long as they accomplish three general aims such as making profit, serving the community and being persistent and specific aims such as employing, leading to being produced of a service or product in sector, innovating and increasing its reputation. To accomplish these goals, organizations primarily should be successful in some points like satisfying individual needs of employees, providing and maintaining their organizational commitment by ensuring job satisfaction. Organizational commitment which is vital for organizations is based upon the unity of individual and organizational goals and being accomplished these goals. Thus, employees, who are deeply committed to their organizations, perceive themselves as an necessary part of the organization, satisfy their sociological and physiological needs, believe that they will be able to achieve their own personal aims through organizational aims, are more productive than the others and become much more integrated to organization and its values.

The level of organizational commitment is dependent on whether organizational aims are correspondence to employees' norms and values; whether the individual needs are fulfilled [10]. Individuals primarily need economic power and social interaction. Spending time in a successful organization, namely work life enables the individual to improve himself/herself in the matters of fulfilling their basic needs, increasing their self-confidence by creating and producing and gaining others' appreciation and respect. Besides it gives the individual opportunities for fulfilling the needs.

Supportive relationships established in work life, where the individual spends about one-third of his/her life, positively affect cooperation among friends, communication in working groups, and feeling of being esteemed to him/her, job satisfaction and motivation. It is seen that the individuals who feel someone love him/her rely on his/her organization and get happier, more productive and successful and more satisfied with working groups and more loyal to organization and their work. Because the individuals' communication with colleagues and manager whom they spend time together and perceived social support that means how the individual has been perceived by the others are very important to overcome the problems which they face in their work life and to increase their motivation and performance.

On the other hand, the support which the individual perceives from his/her private life environment (family, friends, relatives etc.) is a factor affecting performance in work life as the support which the individual perceives from the people in work environment. Social support is defined as material and moral support which provide the individual to be able to cope with stress in need and support him/her struggling with difficult sides of life and protect him/her from negative situations and is provided by the sources of social support in the environment. Sources of social support are classified as family, friend and partner (husband-wife, girlfriend or special person etc.) for private life and as the manager and colleagues who help the individual solve the problems at work for work life.

Problems at work for work life. In the recent researches, many writers such as Coyne and Downey (1991); Ell (1996) and Hupcey (1998) have used perceived social support instead of social support and put emphasis on how the social support is perceived and interpreted by the individual rather than provided social support for the individual.

The terms of both organizational commitment and perceived social support draw attention as two significant subjects to be increased success and performance of all the organizations which is a social system and to be formed structure of the modern society. School is at the head of organizations where the effects of each of two terms are felt intensely because of its position as the most important building block of education system and having many social relationships. The most important and strategic component that will guide the education to accomplish its aims in school organization as a social system is teacher.

Forming of the future in this way that it will range up the society is possible by being accomplished the education system's special and general aims. It is dependent on that teachers struggle much more than expected as well [27]. On the other hand, although the importance given to the teaching and teaching profession increases day by day in our country, it is seen that the problems continue; as one of the most important reasons for the fall in the quality of education can be related with the level of commitment of teachers to the educational institutions they work. The degree of organizational commitment seems to be crucial, as employees are self-committed to increasing the effectiveness of schools with complex, multidimensional nature having inherently abstract aims with various values from different dimensions such as academic, social, economic, political etc.

In this case, teacher's devotion to school, students, education and teaching activities, his profession and colleagues affects his/her performance and success. In other words, his/her organizational commitment, communication with colleagues, school administration, students and people in his/her private life (family, friends, relatives etc.) and level of sharing something with them and perceived support from them are very significant

Education cannot be restricted within the realm of formal curriculum and formal rules but it encompasses the dynamics of teacher behaviors and attitudes emerged in the classroom and school environments. Thus, teachers who exhibit low commitment may cause the education and teaching deviate from its aim by acting negative behaviors in school environment and negatively affect the students. In addition to that, teachers who have inadequate perception of social support may experience stress, depression and lack of motivation and performance.

Even the physical needs of the first step of the Maslow's hierarchy of needs are not met by the schools, and also the external awards provided by the management are not enough to provide satisfaction. Even though teachers are thought to be addressed by meeting their primary needs by lowering their living standards and secondly, the need for security can only be achieved by the retirement, teachers are looking for the higher need for love and belonging, the need for respect and the need for self-fulfillment. Therefore, teachers have an important place in addressing the need for social acceptance, love, respect and support in both work and private life. Teachers who spend a great majority of their daily lives in school are in contact with administrators, other teachers, assistant staff, students and parents who make up the social environment in the schools. In this sense, Civilian classified the sources that teachers are influenced and receive social support; as work place friends, friends outside the workplace, spouse, parents and students. How teachers are perceived in these intensive communication networks; value, respect and support they take; the peacefulness level of their environment, make their relationships healthy and high quality, and affect their creativity, their productivity, their attitudes towards the school and their absenteeism .

When the related literature reviewed, it is seen that many researches are made to examine the relationships between organizational commitment and various variables in order to determine the factors, which will increase the organizational commitment in educational institutions. However, there were no researches that contain the relationship between perceived social support level and organizational commitment and find out the effect of perceived social support on organizational commitment in literature review. Thus, this research aims to find out the levels of perceived social support and organizational commitment and the relationship between the levels of primary and secondary school teachers who firstly guide to form the new generations and take responsibility to realize the expectations of education system.

5.4.1 Organizational Commitment:

There are different definitions of organizational commitment that was examined in the book of "Organization Man" by Whyte in 1956 for the first time. Wiener expresses organizational commitment as organizational identity, loyalty values, duties, personal predisposition and personalized values, which are affected by organizational interventions and struggle for organizational aims. On the other hand, Becker, Billings, Eveleth and Gilbert state that organizational commitment is a psychological attachment of employees to their organizations and is related to such desirable outcomes as job satisfaction, motivation and attendance. Besides, Schwenk states it as a behavior, which encourages working for organization intensively. In general, organizational commitment can be defined as a term which perceives the organization as a whole and includes such behaviors as the individual's loyalty to organization, psychological and moral sharing in organization, preferring the organizations' goals to individuals' own goals, making efforts for the organization, being eager to continuation of organization .

Employees those have high organizational commitment are more self-sacrificing than expected and are less disposed to absenteeism, being late and making the end of organization membership. For these reasons, it is seen that these employees' expenditures

are lower. Besides it is pointed out that these employees are more willing, easy-going, productive and steady to perform their duties and more contributive to innovations and creativity. Organizations and employees who have high commitment respond to customers' expectations ideally, so the service quality of organization increases. Being internalized of organization's mission and vision, motivation and forming of team spirit are connected to organization commitment. There are different classifications of organizational commitment as well as definitions. Three of all classifications come to prominence: attitudinal commitment, behavioral commitment, multi-dimensional commitment. Attitudinal commitment refers to integration of organization with individual; behavioral commitment is a state that individual has to stay in organization because of her/his behaviors in the past; multi-dimensional commitment argues that individual can exhibit commitment to different parts of organizations in different levels. In this research, organizational commitment is based on three separate dimensions of commitment that O'Reilly and Chatman argue. These are compliance, identification and internalization.

In compliance dimension, the first stage of organizational commitment, individual makes efforts for external rewards, not shared values, some gains and avoiding from punishments. Individuals are not given the right to choose, and individuals have to work in an unsafe environment at this level. At this dimension, which is reward-focused and expresses a superficial commitment, forced adaptation is aimed at reaching individual interests and achievements, while employees are less likely to remain in the organization.

In identification dimension, the second stage of commitment, individual accepts organization's aims and values and is glad to be a membership of organization and to live according to beliefs and values of organization. In short, it is possible to define the commitment dimension as a commitment, which creates satisfaction in individual. In the dimension of identification which is related to employees' desire to be close, employees are willing to make good relations with each other and with the group; it is peaceful in being in organization; which in turn affects organizational productivity positively [5]. In order to achieve the identification dimension, the performance and behavior of the employees must be approved and praised; but it is also possible that your attractiveness is easily lost. On the other hand, loyalty at this dimension, although it seems to be pleasing for the person, it also entails responsibility and cost.

Internalization dimension, which is the last stage of commitment, refers to the compliance between organization and individual and it will come true if individuals' and organizations' values are the same [10, 37, 44]. This process, which is both more difficult and longer to achieve, is the form of commitment that organizations desire most. Because once the dimension of internalization is realized, new resources are not needed to influence the individual anymore, since s/he has adopted new attitudes, behaviors or ideas as if he belonged to himself/herself.

5.4.2 Social Support:

The basis of social support having a lot of definitions in literature is based on field theory that Kurt Lewin founded on psychological environment. Lewin defined life space as everything that influences an individual's behavior at any time and behavior as a change in

psychological environment. He stated that developing desired behavior and removing undesired behavior in the individual was possible with changes in psychological environment and he pointed out that social support was very important.

Social support having a lot of definitions is defined by Cobb as information leading the individual to believe that s/he is loved, esteemed, and belongs to a network of mutual obligation. Thoits [49] stated that social support was a source used for coping with stress. In addition to the definitions, Shumaker and Brownell pointed out that social support was an exchange of resources between two individuals perceived by the provider or the recipient to be intended to enhance the well-being of the recipient.

In other words, social support means that the individual is supported, loved, esteemed and respected by social environment and not being alone. Besides, it provides the individual help materially and mentally, develops self-respect, increases self-confidence and affects job and private life positively. Therefore; it is seen to be obligation for life.

The individual begins to feel social commitment to his/her environment while s/he obtains support being needed. People with high social support, have high social commitment, so these individuals are really better to notice their needs, feelings, thoughts and cognitive processes like self-assessment and comparison and to develop empathy and not to have compliance problems.

The sources of social support are classified as family, friend and partner (wife, husband, darling or private person) for private life and as colleagues and managers for work life. Some written sources divide the sources of social support into two categories like informal and formal or organizational and personal. While provided social support in organization is material and informative, provided social support in private life (family, friends) is emotional.

In recent years, perceived social support that means how social support is perceived and is interpreted by the individual has been used instead of social support. Some researchers point out that perceived social support is more important for description of spiritual health. The concept of perceived social support is not only important for every individual in society but also important for educational institutions; attention has been drawn to the fact that educational workers who lack support and are likely to encounter many different problems.

As a matter of fact, the teachers who are appreciated, encouraged by the school management; who are supported by colleagues in solving their professional and personal problems; helped by the parents to cope with student problems; who felt that they are good teachers by their students; who work in schools where the emotional connection is intense and a collaborative atmosphere is getting higher job performances, creativity and job satisfaction. Otherwise, teachers experience a sense of failure, unable to get their job done, become intolerant, they are angry and insensitive, have stress and anxiety.

All of this affects the quality of education negatively, because the personalities and mental health of teachers, as one of the most important elements of education, are as important as academic knowledge.

In this research, it is seen that the teachers who cannot get enough support from the school environment and the environment, the intense stress they experience, push them to loneliness and decrease their motivation; social support seems to be an important element in order to avoid these negative situations and to restore morale.

5.5 Pre-University Education in Karnataka-goals, Structures and Strategies:

5.5.1 Goals:

- Provision of a secondary school within reasonable distance of any habitation with a maximum distance of five kilometers. If required residential schools shall be opened for girls, socially and economically weaker sections, religious minorities and sparsely populated regions.
- Ensure universal access and thereby universalization of Secondary Education in the state where the state will reach GER of 80% by the end of the eleventh five year plan in 2012, and a GER of 100 % by end of twelfth five year plan in 2017.
- Improve the quality of education being provided in all secondary schools.

5.5.2 Structure:

Karnataka has adopted the 10-i-2-f-3 pattern of education just as it is in other regions of the country. However, the break-up of first ten years of schooling is distinctive to the State. The first four years of schooling constitute the lower primary level of education and the next three years constitute higher primary education. This is followed by three years of high school education. In effect the first ten years of education follows the 4+3+3 pattern. However, of late there has been an effort to tag on the fifth standard to the existing LPS. As of now nearly two-thirds of LPS schools carry the fifth standard. There is a district level examination at the conclusion of the seventh standard and a State level public examination at the termination of the tenth standard. A pass in the tenth standard examination is by and large the minimum, essential qualification for employment in the organized sector.

5.5.3 Strategies:

In the context of the Universalisation of Secondary Education (USE), large-scale inputs in terms of additional schools, additional classrooms, teachers and other facilities need to be provided to meet the challenge of numbers, credibility and quality. It, inter-alia, requires assessment and provision of educational needs, physical infrastructure, human resources, academic inputs and effective monitoring of implementation of the programmes. The scheme will initially cover up to class X. Subsequently, the higher secondary stage will also be taken up, preferably within two years of the implementation. The strategy for universalizing access to secondary education and improving its quality are as under:

- Well-qualified trained teachers and optimal pupil-teacher ratios;
- A common curriculum framework with a core component with comparable syllabi applicable to all schools, but adequate flexibility in relation to textbooks, teaching aids, teaching-learning process, evaluation parameters, etc;

- A pedagogy which is holistic and child-friendly and which has a liberating influence and which provides appropriate knowledge and skill to the students to realize their potential and contribute to livelihoods and employability?
- A decentralized school management with adequate autonomy and representation of parents and
- A common language policy.

5.6 Systemic Reform- Strengthening Community Participation; Role of PTC/SMC:

You must have heard that the communities have been donating land for opening the school. Few communities send the agricultural produce to the schools. Even now the communities and the corporate sector give utensils, desks, computer, desk etc. to the school. You must have also seen that few parents especially mothers go to school and teach the vocational skills like painting, craft work etc.

Thus we can say that Community participation in education means the involvement of parents and community members in the planning and management of schools that help in the improvement of quality. Do you know that the community participation in education seems to take place principally in two forms: informal and formal.

Informal: The informal manner, in which local communities contribute to educational effort. It may take the form of providing a piece of land for the school building and contributing labour and locally available material for its construction. During the 1950s and 60s, considerable effort was made, particularly in Tamil Nadu, in mobilizing community support for education. Substantial contributions were made in cash and kind by local communities and parents' groups to meet the needs of educational institutions.

Formal: The formal mechanism for community participation has taken the form of what village panchayats and village education committees/ ward education committees do. Under SSA various structures have been created like the Village Education Committees/ Ward committees, Parent Teacher Association, Self-help groups, School Management Committees and have been given specific duties in the monitoring and supervision of the school administration and management.

5.6.1 Importance of Community Participation:

You must have seen that when the community takes interest and is involved in education then the education does not remain limited to the books. The child is able to learn easily as he/she not only learn through the books but also relate to the daily experience of their life. With the involvement of the community it is easy to identify the problems faced by the local people. Village education Committee can help to decide where the new school needs to be opened, which schools need to be repaired. They can also see if the teacher is coming regularly to the school and teaching properly. They can also see if the sufficient classrooms are available and the classrooms are not overcrowded. The community can also supervise if the books are given to students on time and mid-day meal is given to them regularly. They can visit and eat with the children to know if the food served is of good quality.

They can also visit households and identify the children who are not coming to school. They can also motivate the parents to send their children to school. In short we can say that community participation is very useful in enrolling the children and improving the quality in education.

As has been explained above that under the RTE / SSA Community Participation in education is being envisaged as an efficient strategy to achieve many objectives, including increasing the relevance and quality of education, improving access and coverage, identifying problems reflecting local priorities , developing relevant curriculum and learning materials, improving ownership, local accountability and responsiveness, reaching disadvantaged groups, mobilizing additional resources and building institutional capacity

You must be aware that various research studies have highlighted that the children of rural poor, disadvantaged, those living in slums are either not enrolled in school or even if they are enrolled they dropout. The studies also point out that even if these children remain in school they do not learn much.

There is increasing realization that involvement of the people, especially rural poor and landless labourers, urban marginalized groups like living in slums and squatter settlements, disadvantaged groups like Scheduled Castes and Scheduled Tribes and women in programmes of educational development is essential.

If these groups are involved, they can describe their problems and suggest suitable solutions. State can make appropriate intervention. In short, we can say that the participation of the community in the educational activities is useful in the following ways: • It helps to increase the mobilization of the financial, human and material resources required to make the educational system efficient. • It becomes easy to adopt education to the needs, problems, aspirations and interests of all sections of population especially weaker sections. • Participation is essential to keep the community involved in the educational reforms. It is also an important instrument to stimulate initiative. • Community participation will keep the teachers alert and responsive.

5.6.2 Role of PTC/SMC:

Few states like Karnataka, Madhya Pradesh etc have introduced the system of formation of School Management committee known as School Development and Monitoring Committee (SDMC)/ Parent Teacher Association in each Government school to ensure community ownership and participation in education.

5.6.3 Composition of SMCs:

RTE states that three fourths (75%) members of the SMC from the parents/ guardians. From them 50% will be women. Weaker sections will be represented in the SMC in proportion to their population in the village/ward. Rest one fourth (25%) will be represented as 1/3rd local authorities; 1/3rd school teachers; 1/3rd academicians/students).

Significant powers and duties of the SMCs as described in RTE act are as follows:

5.6.4 Key Functions of SMC/PTA:

- Making School Development Plan(SDP) as per the RTE guidelines/norms
- Supervising and supporting implementation of SDP
- Supervision/monitoring of finance, management, academic progress
- Ensuring regular attendance and punctuality of teachers
- To sanction restricted and casual leave to primary, upper primary head masters
- Auction of all useless equipments, furniture and the money to be given to school education fund
- Regular auctioning of crops grown in the school lands and giving the money to the School education Fund.
- Organizing programmes for mobilizing enrollment and bridge courses for bringing children back to school
- Supervise the construction activities
- Ensuring that the parents enroll and send all the children to school regularly
- Monitor children's growth in the achievement in different subjects
- Supervise and review all development-academic, administrative and financial activities of the school.
- Ensuring that all the incentives from the government reach to the students.
- Keeping proper accounts of the fund available and sharing its deployment and utilization with common people
- Creating and maintaining an educational database An example given below tells as to how the SMC members articulated the demand for the repair of electric connection.

5.7 Management of Resources: Manpower Planning, Recruitment; Budget Constraints planning for School:

5.7.1 Manpower Planning, Recruitment:

Think for a while the crop-growing process of farmers in a village. They are the real human resource because they cultivate the land by a production process (a) prepare the field through ploughing, (b) weeding, (c) sowing, (d) irrigating, (e) manuring, (f) putting insecticides to avoid crop-disease, (g) harvesting the crop, (h) storing the produce. All these production-processes requires human effort, knowledge of crop-growing, organizing the family labour or hire labour if they are the tenant farmers, making provision for seeds, fertilizers or manures insecticides, irrigation management, farm machinery for growing crops. They take the risk of crop-growing if harvest fails to yield the produce.

This knowledge and skills of growing a crop is considered as human resource. Any wrong decision, delay or casualness can cost the farmers financial loss since in crop-growing; the nature plays an important role which is beyond human being to control it. However, the idea here is that human resources are very important to create income or wealth in a community or society or country. To some extent this also applies to the schooling. Here the teachers and school management puts human effort in converting raw students into educated and trained persons who are capable of making their living and enhance their family's' quality of life and at the same time contribute in the country's' income.

But the risk factor in schooling is not so strong since the schooling of students is done on paid remuneration. Teachers are paid remuneration and their risk factor is not comparable to the farmers. Farmers lose their investment in case of failure of crops as in case of teachers this does not happen.'

A. Situations that Call for Teacher Empowerment:

As educational institutions are labour-intensive organizations, the quality of staff is of paramount importance. A group of personnel who are highly qualified, well-motivated and supportive is an asset that can take any organization a long way towards building up of excellence. If teachers are to deliver the goods, their skills should be continually strengthened and enhanced. The more the investment on their continual training and retraining, the greater would be their capability to accomplish organizational goals. Several factors that prevail in the organizational set up point to the need for such an empowerment of the teachers. It is estimated that in some academic disciplines, knowledge keeps doubling every five years. Unless teachers are inspired to make conscious investment in scholarship, they are unlikely to successfully deal with such a barrage of information. In addition to this explosion of knowledge are the advances in pedagogy, learning materials, and use of technology. The present day teachers are also confronted by other problems such as ever increasing number of students, their diversity in terms of learning abilities (slow, average and gifted), changing societal values and expectations, as well as changing requirements of the teaching profession. All these call for sustained and concerted efforts on the part of the concerned agencies so that the teachers would become capable of handling their roles efficiently and effectively.

If teachers are to tide over the difficulties like the ones explained above and take up and tackle challenges, their resources should be developed to the optimum level possible. When teachers are equipped with the skills that enable them to keep abreast of the latest information, to make themselves familiar with the latest innovations in teaching methodology and research and develop a concern for quality, they will be in a position Implementation to carry on with their roles with ease and effectiveness. Similarly, they need to pick up sufficient skills to deal with the ever-growing enrolments of students, skills to handle resources within the constraints of finances available, and skills to respond to the changing demands, needs and aspirations of the students. Only then will teachers be able to impart quality instruction to the learners.

Despite fast dwindling finances and fast growing enrolments, the community expects a lot from teachers. If teachers wish to rise to the expectations of the present society, they need to build up proper understanding about pupil needs and aspirations, about the manifold ways through which students learn, about information technology and its application to the subject. In addition, teachers also need to develop a commitment to scholarship in the subject of their specialization and learn to maintain a work ethic. Teachers also require the ability to teach a diverse range of students with varied abilities, learning to different age groups and socio-economic backgrounds. Those teachers who handle higher education, in addition to the above, require the competence to instruct their pupils how to prepare research proposals and research reports. Unless teachers are specifically trained in these aspects, most of them will not be in a position to pick up these skills on their own. Hence, elaborate and sustained efforts need to be put in to develop teacher competencies.

B. Roles of Different Agencies in Teacher Development:

If we just take a look around, it would not take long to find that several agencies like CTEs (Colleges of Teacher Education), DIETs (District Institutes of Education and Training), CASE (center of Advanced Study in Education), and IASE (Institute of Advanced Study in Education), University Departments of Education. Indira Gandhi National Open University, State Open Universities, Correspondence Course Institutes and several others are continuously involved in the professional development of teachers. There are hundreds of colleges of teacher education spread over the length and breadth of the country. These colleges are relentlessly involved in selecting, orienting and training student teachers. The teacher educators of these organizations strive to identify the several roles the present day teachers are supposed to play in their prospective schools where they may be appointed and design their education programmes to meet those objectives. During the process, they make conscious efforts to develop in teachers several professional competencies and personal qualities required for imparting quality instruction to the students.

In order to vitalize elementary teacher education and to enrich primary education qualitatively, several DIETS have been established. They energize the educational climate of the districts where they are situated by providing rich support in terms of resources for improving the professional competencies of teachers. Each DIET acts as resource and learning center for teachers as well as instructors. It creates awareness not only about educational technology and its use but also provides computer education support for the district. Besides providing pre-service education to primary teachers, it provides instructors and supervisors with orientation; non-formal and adult learners with continuing education and the required resource support. Above all these, DIETs also provide management support to District Boards of Education, school complexes and to other institutions that seek its help.

The Centre of Advanced Study in Education (CASE) set up in the Faculty of Education 72 and Psychology, the Maharaja Sayajirao University of Baroda, Gujarat, the only one of its kind in the entire country and a number of Institutes of Advanced Study in Education (IASE) now being set up in different states of the country are also involved in the development of the teachers for teaching at the secondary and higher secondary levels. These institutions conduct B.Ed., M.Ed., M.Phil, and Ph.D. programmes.

They play an indisputable role in strengthening teaching at the graduate and postgraduate levels in education. These institutions not only plan and carry out extensive and intensive research on various aspects of education but also evolve research-based alternatives for improving the instructional process at various levels. These institutions also train personnel in the educational research and provide professional orientation to teachers of other organizations. Above all these, they also try their hand at extension by dissemination of research findings in the area of education through various publications.

CASE, IASEs, DIETS and other similar organizations that are involved in teacher education, apart from taking up pre-service education programmes of teachers, also organize a variety of programmes by way of in service education. They run refresher courses and hold orientation sessions and other enrichment programmes with a view to vitalizing and familiarizing teachers with modem trends and innovative modalities of cuniculum

transactions in the area of teaching and learning. Above all these, they also hold conferences, workshops, and seminars, carry on exchange programmes, field trips, and projects and conduct research. Thus attempts on a continuous basis are made to transform teachers into better-empowered entities.

The School of Education, IGNOU and many State Open Universities offer in-service teacher education programmes at pre-primary, primary, elementary, secondary and higher education levels. The Academic Staff Colleges (ASCs) conduct orientation and refresher programmes for college and university teachers.

5.7.2 Budget Constraints Planning for School:

Effective implementation of any educational programme presupposes adequate availability of financial resources. Without sufficient amount of money, we cannot have qualified teachers, suitable buildings. Competent administrators, good textbooks, appropriate teaching aids and essential amenities.

The budget, therefore, becomes an important instrument of control over various educational operations. Management of finance is an activity, which is concerned with judicious and optimal use of financial resources. For the efficient management of finance, proper financial planning or ideal budgeting is essential.

Budgeting is generally a process by which the financial policy of a public agency is formulated, enacted and carried out. It is a systematic method of gathering information from the past and present, of formulating plans for the future on the basis of this and of reporting subsequently how these plans have been carried out. In short, a budget could be seen as a formalized statement of the anticipated expenditure and revenue of an organization for a stated period of time. An annual budget thus, becomes an interim instrument for the implementation of educational policy.

Along with the calendar of events, the Finance Department issues guidelines for preparation of the budget by the departments of the Secretariat. The secretaries concerned circulate them among the respective heads of departments. In turn, the heads of departments instruct their subordinate offices and units to prepare their budgets.

The exercise of budget formulation, thus, has become a matter of routine at various levels from the institutional level to the level of the Secretariat. Budget is an administrative mechanism, a tool for helping to get the job done. If the budget is wisely produced and operated, it can determine the nature of the educational programme, staff quality, plant adequacy, class size, and the extent to which educational objectives are achieved.

In short, budget formulation, as we have seen, is a periodical exercise of the government at all levels of administration. This is generally done on the basis of the performance of the previous year in respect of financial allocation and its utilization by each department of the government. The performance of each department is appraised through deliberations of the legislature before voting the expenditure for the succeeding year. Therefore, the system of budget formulation is more or less considered as performance budget.

a. At Taluk and District Levels:

Based on the previous year's expenditure, the Assistant Education Officer (AEO) prepares budget estimates at the taluk level. Included in this estimate are salaries of teaching and non-teaching staff of all primary schools, expenditure on their offices, repair of buildings, etc. The financial requirements of grants-in aid to aided institutions of the taluka are also included in the proposal. Grants-in-aid to private institutions are governed by the rules of the grants in-aid code. There are specific codes for each category of institutions. Each state has its own rules for the permission and recognition of and also rules for extending grants to institutions.

Grants in-aid are made available to privately managed institutions by the state governments for a number of purposes. Salaries and allowances of teachers, rent and repairs of school buildings, expenses incurred on account of purchasing furniture, equipment, and teaching materials, purchase, acquisition and extension of the school buildings, playgrounds, meeting loss of income due to fee concession, etc. are some of the main items which come under grants-in-aid categories. Resource Management for Education at Macro-level for being eligible for such grants, the states lay down conditions from time to time. The final draft of the proposal including those expenses incurred on account of grants-in-aid is also submitted to the Deputy Director of Public Instruction of the district.

Deputy Director of Public Instruction prepares the budget for the entire district after receipt of proposals from the various heads of government high schools and taluka AEOs. This consolidated budget estimate of the district includes salaries of the teaching staff of the government primary and high schools, contingent expenditure, salaries of office staff, funds required for incentive schemes, construction repairs of school buildings, etc. Once the budget is completed, it is submitted to the respective Zilla Parishad. The Zilla Parishad in turn, prepares a comprehensive budget for the entire district covering all the departments. Each district submits its respective proposals to the government through the Rural Development Secretariat.

b. At State Level:

After receiving the budget proposals from the divisional level and the other concerned subordinate units, the heads of departments at the state level prepare consolidated budget proposals for their departments. Budget proposals prepared at this level include establishment charges of the Directorate, divisional offices, their subordinate units and state sector schemes. This consolidated budget proposal is submitted to the Education Secretariat, which then passes it on to the Finance Department for necessary action.

c. Disbursement of Salaries to Teachers:

As far as the disbursement of salaries to teachers of government institutions is concerned, a uniform procedure is being followed. According to the procedure, the heads of institutions prepare the salary bills every month and present them to the designated banks. The banks, in turn, present these bills to the concerned treasuries and the proceeds are credited to the account of the school or in certain cases to the individual teacher's account.

In certain cases, the teachers of aided institutions are also paid their salaries through designated banks. The heads of institutions prepare their monthly salary bills and submit them to the Assistant Education Officer in the case of primary schools and Deputy Director of Public Instruction in the case of secondary, higher secondary and teacher training institutions. The AEO or Deputy Director of Public Instruction countersigns the bills as the case may be, after proper scrutiny.

Then the bills are sent to the respective banks which Ancash them from the treasuries concerned. The money obtained by the bank will then be credited into the account of the individual teachers. Towards the end of the financial year, differences in payment will be adjusted in the final bill. As we have seen, although there is uniform procedure of distribution of salaries of teachers of government institutions as well as government aided institutions, practically there is no uniform procedure discernible in the disbursement of salaries of the private unaided institutions. Each institution has its preferred way of disbursing the salaries to their staff. Since such schools are not bound to follow any specific procedure, corrupt practices can creep into the system. There are also systematic ways of auditing the accounts of both the government institutions and grants-in-aid to private institutions. The Accountant General conducts the test audit in the case of government institutions while the departmental officers' conduct periodical inspection of both government and non-government institutions. During the inspection, the departmental officials also audit the accounts of the Education at Macro-level institutions.

5.8 Inspection, Supervision and Monitoring:

Supervision is a way of stimulating, guiding, improving, refreshing and encouraging and overseeing certain group with the hope of seeking their cooperation in order for the supervisors to be successful in their task of supervision. Supervision is essentially the practice of monitoring the performance of school staff, noting the merit and demerits and using befitting and amicable techniques to ameliorate the flaws while still improving on the merits thereby increasing the standard of schools and achieving educational goals. The term supervision is derived from word "Super video" meaning to oversee, Adepoju (1998). It is an interaction between at least two persons for the improvement of an activity.

It is also a combination or integration of processes, procedures and conditions that are consciously designed to advance the work effectiveness of individuals and group. Adepoju (1998) defines school supervision as the process of bringing about improvement in instruction by working with people who are working with pupils. It has also been described as a process of stimulating growth and a means of helping teachers to achieve excellence in teaching. Supervision in school therefore is a vital process and combination of activities which is concerned with the teaching and improvement of the teaching in the school framework.

5.8.1 Differences between Inspection and Supervision:

Inspection could be described as the critical examination and evaluation of a school as a place of learning, (Ojelabi, 1981). Through inspection, necessary and relevant advice may be given for the improvement of the school. Such advice is usually registered in a report.

On the other hand, supervision is distinct from inspection since it can be described as a constant and continuous process of personal guidance based on frequent to a school to give concrete and constructive advice and encouragement to teachers so as to improve the learning and teaching situation in the school. On such visits, attention is paid to one or more aspects of the school and its organization. Therefore, it is normal to refer to both at the same time.

5.8.2 Rationale for School Supervision:

The importance of supervision in schools includes the following.

- Improvement of teaching and learning.
- Systematic efforts to help students understand themselves, get in touch with their own feelings and monitor their own behavior.
- Helps teacher in school management.
- For approval of new school.
- Payment of grant in aids to private and voluntary schools.
- Approval of schools for recognized examination bodies.
- Assessment of teaching and learning.
- Linking teachers with the ministry of education.
- Assistance in development of needed teaching competences.
- To obey the education law that makes supervision mandatory.
- Helps to interpreter school programme to the community.
- Development of sound education philosophy in teachers.
- Creates confidence in incompetent teachers.
- Identifies good qualities possessed by teachers.
- Determines whether a teacher should be transferred, promoted, retained or dismissed.
- Identifies urgent needs in classroom and schools.
- Examines continuously school instructional goals and assesses teacher's performance in meeting such goals.

5.8.3 Types of Inspection:

- **Routine Visits:**

This is short visit made to school on which no formal reports are written but brief comments are made. The aim depends on such inspector on why such inspection is made. It may be check on punctuality of teachers or how the school is settling down. One of the aims of such supervisory visits is to look into what is happening, the work being done, the human relationships or the appropriate use of the building and school equipment.

- **Investigation Visits on School Administration:**

This is to investigate an aspect of administration organization in the school e.g. special problem of discipline, investigation of an allegation of fraud.

- **Special Visits:**

This is for an inspection of one or a limited number of aspects of the school e.g. teaching of English.

- **Follow-Up Visits:**

This is follow up of previous visits. The inspector investigates whether the suggestions, corrections and recommendation he or she made during the previous visit have been carried out by affected schools. He or she also ascertains to what those corrections and suggestions are helping in achieving the school objectives

- **Sampling and Survey Visits:**

This is for particular aspect of education over a number of schools e.g. teaching of Mathematics, Headmasters duties.

- **Visits for Approval for opening Schools:**

Such visits are paid to new schools to find out whether they satisfy the condition necessary to obtain approval for opening.

- **Full Inspection:**

An inspection which consist of a team of inspectors visiting a school for several days usually a week or longer enquiring into every aspect of school programme and examining its buildings and surroundings is referred to as full inspection. Such visits are usually followed by a comprehensive report, copies of which are made available to the school and ministry. The frequency of the inspection of a school depends on a number of factors, such as the number of schools in the area, the availability of inspectorate staff, the needs of the school etc. However, the interval between inspections should not be more than 3 to 5 years.

- **Investigation on Financial Mismanagement Inspection:**

This is not a common type of inspection, it takes place when there is a misappropriation of funds, professional misconduct and during teachers and students unrest. It can last for two or three days. Report of findings is normally sent to the Ministry of Education for further actions.

- **Subject Inspection:**

This type of inspection is conducted under two circumstances.

a. If a school failed in certain subjects during the inspection for recognition and the school applies to the ministry of Education for a reinspection of the failed subjects during the earlier inspection.

b. If a school wishes to register its final year student for final examinations in certain subject which were not inspected during the inspection for recognition. Application for such inspection is usually granted and the inspection take place before registration for such exam. If the school that applies; passes the inspection, it is allowed to register students for subjects.

5.8.4 Basic Principles for Effective Supervision:

a. Healthy Atmosphere:

The environment should be made free of tension and emotional stress. The atmosphere should be given incentives for work.

b. Staff Orientation:

The quality and quantity of the work must be specified in clean clear terms. Staff should be made to understand clearly what are or not expected of them. New staff must be given the necessary orientation. They should have a schedule to know where to get information and materials to help them perform the work satisfactorily well.

c. Guidance and Staff Training

Staff should be offered necessary guidance. They should be guided on how to carry out the assignment, standard should be set by the supervisor while information should be given ruling out the possibility of rumours. Information should be for everybody and specifics to individuals assigned to a particular task. Techniques of how to do it must be given at all times. The school must always arrange and participate in staff training.

d. Immediate Recognition of Good Work:

Good work should be recognized. This implies that the acknowledgement of any good work done must be immediate and made public to others which will then serves as incentive to others. Incentive of merit, recommendation for promotion, etc. improve performances.

e. Constructive Criticisms:

Poor work done should be constructively criticized. Advice and personal relationship should be given to the affected staff. It needs be stated here that such criticisms should be made private and with mind free of bias.

f. Opportunity for Improvement:

Staff should be given opportunity to prove their worth and for aspiring higher. They should therefore be allowed to use their initiatives in performing their jobs and taking decision .It will give them the motivation to work much harder.

g. Motivation and Encouragement

Staff should be motivated and encouraged to work to increase their productivity. They should be encouraged to improve their ability to achieve organizational goal.

5.8.5 Monitoring:

Improvement in the quality of elementary education requires a variety of interventions and innovations concerning inputs and processes at different levels. Mere launching of a variety of initiatives having significant bearing on improvement in the quality of education, would seldom guarantee optimal outcomes in terms of the success of the SSA. This requires sufficient provision for meticulous monitoring and regular supervision of inputs, processes and outputs by functionaries and agencies at different levels during different periods.

It is important that, planning is preceded by an assessment of goals and objectives, analysis of the status of progress and utilization of feedback received for mid-course corrections. With a view to taking corrective measures, regular supervision is needed for the purpose of optimizing the effectiveness and ensuring timely implementation of the programme. No programme can be managed successfully without the feedback and follow up through monitoring and evaluation mechanism.

Sarva Shiksha Abhiyan is a scheme launched by the Union Government and being implemented by the States. The monitoring reports and outcomes help both the organisations to own the scheme.

The document SSA- Framework for Implementation (2011) suggested a structure for carrying out the scheme. The structural arrangement, procedure for execution and performance evaluation of children and maintenance of records at various stages may be considered as mechanism of monitoring of SSA.

a. Development of Quality Monitoring Tools (QMTs) by NCERT:

With a view to managing the quality of elementary education under SSA, the Ministry of Human Resource Development (MHRD) through the National Council of Educational Research and Training (NCERT) put in place a massive programme of monitoring quality dimensions of elementary education throughout the country during 2005-06.

The NCERT in consultation with States/ UTs, National Institute of Educational Planning and Administration (NUEPA), Technical Support Group (TSG), Ministry of Human Resource and Development (MHRD), Government of India, developed a set of Quality Monitoring Tools which consisted of 14 formats and 3 analytical sheets.

NCERT created a mechanism of monitoring based on the structure suggested in the scheme and active involvement of the personnel for monitoring the quality of education in the schools. A set of monitoring tools were developed to provide half yearly and annual information on several quality related indices of RTE-SSA covering the six dimensions as shown in Figure 5.4.

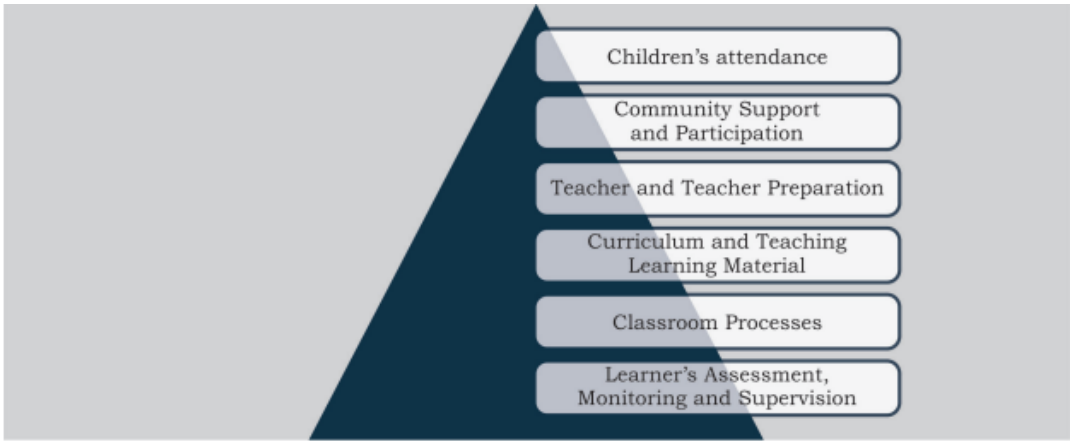


Figure 5.4: Quality Dimensions covered in Quality Monitoring Tools

These formats/tools known as QMTs were rolled out in all the States and UTs. The management of quality through effective monitoring under SSA has been envisaged as a multi-tiered one: at the school/community level, at the cluster level, at the block level, at the district level, at the state level and at the national level. This necessitated development of a proper monitoring mechanism for assuring quality at various levels, i.e. school/community level, cluster level, block level, district level, state level and the national level for a functional self-sustained feedback system.

b. Objectives of implementation of Quality Monitoring Tools:

- To institutionalize quality monitoring system of elementary education in the States/ UTs.
- To promote understanding of various dimensions of quality of elementary education among state, district, sub-district and school functionaries.
- To ascertain the participation of community in functioning and monitoring of elementary education system.
- To monitor the progress of and provide feedback on various dimensions of quality education at elementary level within and outside the classroom, and finally
- To improve the quality of elementary education as envisaged in the RTE Act 2009. (QMTs, NCERT, 2014)

5.9 Classroom Management and the Teacher:

Creating situations and opportunities for encouraging learning by each and every student in the class is one of the basic things that you as a teacher would expect to do. Let us look at our classrooms while thinking of creating favourable situation for learning and try to identify the components of classroom environment.

A class constitutes of a group of students, in most cases of same age, and a teacher to teach and facilitate students' learning. The teacher of a class knows his/her students very well. Usually, one of the rooms in the school specially constructed for the purpose of

accommodating a class is called a classroom. Ideally, there should be a room for each class or each section of a class. However, in several schools you will find the number of rooms to be less than the number of classes. In such schools, one room is used to accommodate more than one class (Refer Unit 7 for multi-grade classes). Besides the teacher and students, what do you think are other elements that constitute a classroom environment? Consider Situation1 where the classroom in which Mr. Vivek went to teach had the roof leaking, the floor and seats wet, and the seats and the materials scattered around the class. Certainly, these are not congenial for children to focus on any activity. What could you have done if you were in place of Mr. Vivek? Surely, you must have taken care to ensure a safe, secured and comfortable condition for your classroom. These relate to the physical conditions of a classroom which need to provide security and comfort to children. The physical environment of the classroom also includes the resource materials available in the classroom which can be used both by the children and the teachers to facilitate learning.

Suppose, you have a classroom with sound physical conditions and adequate materials needed for use by you and your students. In spite of such favourable conditions, you observe the students in the class quarrelling with each other and you are quite desperate about it. Surely the climate in your classroom prevailing at that moment is not congenial for teaching-learning process to continue. Therefore, three aspects are to be taken care of in order to build a learner friendly classroom climate.

5.9.1 Creating a Learner Friendly Environment:

The classroom environment should be such that each and every child feels comfortable, joyful and feel encouraged to use his/ her potentials optimally for learning. There are three possible categories of classrooms in terms of classroom management:

Dysfunctional, Adequate and Orderly.

- ***Dysfunctional classroom environments*** are often chaotic. The teacher constantly struggles to maintain control. Little sustained learning can take place in this situation. In real terms, the class is not at all functioning so far as learning is concerned.
- ***Adequate classroom environments*** exhibit a basic level of order, but the teacher still struggles to maintain it. Some learning takes place sometime in this situation.
- ***Orderly classroom environments*** fall into two further categories – *restrictive and enabling*:
- ***Orderly, restrictive learning environments*** are "tight-ship" classrooms where the teacher maintains a high degree of structure, manages routines tightly, and uses very few instructional strategies. In this case maintenance of order through strict disciplinary measures is the main concern of the teacher.
- *Orderly, enabling learning environments* are found in smoothly running classrooms that manifest a comparatively looser (but not loose) structure. In these classrooms, teachers use a wide range of routines and instructional strategies, and the emphasis is on students making meaning of content. For creating an enabling learning environment, what you need is to look for reasonably comfortable physical conditions of your classroom.
- ***Physical Environment of the Classroom*** A good classroom is like a home away from home for both the teacher and the students. It should thus be safe, secured, attractive

and functional, keeping in mind the grade, age appropriateness, the type of classroom activities the teacher and students will perform etc. A classroom environment communicates a bit good about what the classroom is like. The physical atmosphere of a classroom speaks about the nature of students and teacher of the class. As mentioned earlier, the physical environment of a classroom has two major components: the physical conditions and the material resources available in the classroom.

- ***Physical conditions of classroom*** Refer to the infrastructural facilities and their proper maintenance. The classroom needs to be a part of a *pucca* building without any leakage in the roof. The walls and floor should be properly plastered without any edges that can cause injury to children. The room is to be well ventilated, and sufficiently lighted with large doors and windows facilitating cross ventilation which would make the environment of the room comfortable and pleasant for children. Lack of these will affect students' concentration. Plants outside the classroom are also excellent for improving the quality of air and to have a good outside view from within the room. There should be sufficient space available in the classroom for conducting any group work. Always remember that the classroom environment should be congenial and safe for the students.

Another important aspect we do not give adequate attention is the proper maintenance of the physical conditions of the classroom. Whenever a slight damage on the floor and the walls are noticed, they need to be immediately repaired. The classroom needs to be extremely neat and clean. This not only ensures a healthy classroom environment, but also develops habit of personal hygiene from the early age.

To maintain cleanliness in the classroom, you can play a vital role by involving students for regular cleaning of classroom just before the start of the school activities and when the school ends for the day. During the class hours, you might have observed waste materials like pieces of papers, leaves, flowers, chalks, and broken sticks etc. which were used in different learning activities thrown all around the classroom floor by the students.

If you keep a box or a paper cartoon inside the class and develop an habit in the students to throw all the waste materials in that box which is then disposed in the garbage pit of the school at the end of the school hours daily, then such a practice would not only the keep the classroom environment clean but also develop a habit of cleanliness among students which they may extend to keep their home environment clean.

The classroom space i.e. walls and floor should be decorated in a child friendly manner. Such decorations add to the beauty of the classroom environment and attract the children which ultimately facilitate in students' learning (refer section 5.3.2 for space management). The sitting arrangement must be designed in a systematic way so that the organization of the seats helps the students to feel more involved (for detailed discussions refer 5.3.3).

When you are engaged in the management of classroom teaching-learning process, you need quite a large number of materials like boards (black or white) to write, display boards, materials/furniture for sitting, storing along with the teaching-learning materials (TLM). Their placement, storage and use in the classroom both by you and your students constitute essential part of the physical environment of the classroom. These aspects of material management in the classroom are discussed in detail in the next unit of this block.

- ***Humane relationship in the classroom*** As a student yourself or as a teacher, you might have experienced that there are teachers with whom all the students of a class are attached i.e. the students love to interact with them and feel free to talk and ask questions, like to spend more time with them, obey them with love and respect and can do whatever such teachers ask them to. These teachers are quite sensitive to the needs of the students; they share the agony and happiness of the students and are always there to help whenever any individual student is in difficulty. You might also have observed that Also it is observed that the students in their class have good relationship among each other and most students perform better in the subjects taught by such teachers than in other subjects.

Thus we can say that the bond between the teacher and students determines the quality of the humane relationship. In any classroom, two types of relationships exist: 'Teacher-Student' and 'Student – Student'. If these relationships are based on mutual understanding, respect and co-operation, then it is easy for the teacher to manage the classroom activity.

A. Management of Individualized Learning:

As teachers, we are used to teach the whole class using lecture method which has been discussed in greater detail in Unit4 of Block 1. In such a method the communication is dominantly one way i.e. from teacher to students in which teacher is in total control of the process of interaction. If the teacher desires, then he/she may allow students to ask questions or discuss among themselves, which is very rare since the teacher in such a situation as he/she is under the pressure of covering the course in the prescribed time. Student-teacher communication is less and virtually there is little scope for student communication. It has also been established that very few students at the primary stage have substantial learning gains through this method.

However, the aim of education is to enable every individual child to become an able learner and as such individualized learning is the ultimate goal of all teaching-learning processes used in the classroom so that each learner becomes self-reliant in acquiring learning experiences. Individualized learning, also known as self -paced learning, requires individual efforts and interest to perform a task .The teacher gives clear instruction to every learner on the carefully designed set of learning activities to be successfully completed, at his/her own pace. Therefore, as a teacher, you must provide ample opportunity for the student to function individually and at his/her own pace in your class.

For individualized learning you can use technological devices like computers or use some self-learning materials and assignments depending on the availability of resources in your school. Based on the learning theory of Operant Conditioning by B.F. Skinner, programmed materials were used in a limited scale for self-learning during 1960s and '70s. Computer-Assisted Learning (CAL) is now getting into our classroom which is aimed at developing individualized learning. The management of CAL in the schools has been elaborated in the Unit 12 of the Block 3 of this course. Textbooks along with specially designed guides or work books, specially prepared self-instructional materials (SIM) are now being widely used in several schools and for individual students in distance education courses. But the most frequently used self-learning method is the practice of assignment in the normal classroom.

● ***Assignments in the Classroom:*** Almost every day, you give your students individual assignments in the class. Some of these assignments are long and some short varying on the basis of duration for completion and time available. The assignments provide students opportunities of practice for self- correction and understanding of the concept. Consistency in doing individual activity is found to help in raising learning level of the students. The following guidelines may be considered while creating individual learning situation in the classroom:

- ***Communicate assignments / activity***: clearly, so that each student can have full understanding about what he/she is supposed to do. If necessary, give example to illustrate your point.
- ***Monitor student's work:*** While the activity is going on, you should move around the class and provide help whenever necessary. Do not interfere else they may feel discouraged.
- ***Checking students' assignments****:* Students will work at different speed, so the class will not finish the task at the same time. In a large class size, checking student's work is a challenging task. Sometimes, this can be accomplished by getting students' to check each other's work. This is particularly appropriate for assignment involving fixed / specific answers. But certain assignments require your careful reading.
- ***Provide appropriate feedback****:* Learning occurs when students receive feedback on the performance of their assignments. All assignments need to be corrected and feedback should be given. This should occur as soon as possible after the assignments have been handed over.

B. Management of Group Learning:

You might have noticed that in whole class learning and individual learning there is one major limitation which is the students cannot interact freely with each other. The importance of such interaction in providing a balanced education to the children began to be realized during the 1960's, largely as a result of the influence of humanistic psychologists like Carl Rogers. He considered learning to be essentially social in nature and educating children in a social environment make them good future citizens. Such a social atmosphere can be created in the classroom when the children are facilitated to have enough scope to interact with each other. Group learning especially small group learning strategy is considered as appropriate for this purpose. A progressive increase in the use of group-learning methods in the classroom learning activities has been observed since the late 1980's and 1990's.During this interactive process, meanings are shared and information is exchanged. The classroom, then, becomes a social arena for increasing one's knowledge. By comparing their understanding with that of others and by examining their knowledge against other's knowledge, students develop a new understanding. For example, while solving problems cooperatively, the students interact with other; they debate, reason out, infer and conclude in the process of solving the problem.

One of the main advantages of the group-learning approach is that it can be used to achieve extremely wide range of educational objectives, especially higher-cognitive objectives of all types like problem-solving, decision-making and other complex life skills. It is also an approach for developing creative thinking and other divergent thought processes.

It is effective in achieving all types of affective and interpersonal objectives. Because of its versatility, group-learning methods have been increasingly used by the teachers around the world for helping students to develop desirable attitudinal traits such as open-mindedness and willingness to listen to other people's point of view, and for developing communication skills and general interpersonal skills.

Some *general features of group learning* are:

- Several learners can provide more time/effort/resources available than one; _ A wider range of knowledge/skills/experience can be acquired through sharing knowledge and experience;
- More and a variety of ideas can be generated through brainstorming in the groups;
- Errors can be identified and corrected more easily;
- Participation increases commitment of the students to the activity.

There are several *difficulties associated with group learning* which are to be taken care of while planning and managing group activity:

- Absence of or lack of adequate coordination among participants.
- Unequal participation, ranging from over-domination by one or more individuals to partial or complete opting out/withdrawal.
- Pressures (external and internal) on individual learners to conform or polarize on the issue being discussed in the group.
- Absence of a systematic approach to the work.
- Unsound/ambiguous/changing decision-making procedures.
- Immediate evaluation of outcomes may be quite premature.

The role of the teacher in organizing group learning in the classroom is mainly of a facilitator and guide. After deciding the topic(s) to be discussed or the problem(s) to be solved in groups, the teacher has *three main functions: formation of groups, facilitating communication in the groups and consolidating the outcomes of the learning in the groups.* Grouping of students can be mainly of four types: grouping by ability, grouping by interest, grouping by choice and random grouping.

- ***Grouping students by Ability (Homogeneous grouping):*** Ability grouping is a method in which you look at the ability of each student individually and place him/her in a group with other students possessing the same ability. For example, students with proven high, average and low abilities in Mathematics performance are placed in three separate groups. You can give challenging tasks to the high ability group whereas the low ability group is given simple tasks to strengthen their understanding and skill in mathematical concepts and operations. It gives the students an opportunity to put their ideas forward and with a combined effort, come up with appropriate solution as per their ability levels. The low ability students undoubtedly require your personal attention and hence this type of grouping can be done for enrichment or remedial purposes. The disadvantage is that sometimes according to this kind of grouping, students are labelled either as bright or as weak students. The weaker students are likely to be demoralized which can adversely affect their self- confidence.

- ***Grouping students by Interest****:* Think of a classroom, where the teacher plans to conduct a variety of activities simultaneously. The activities are: drawing, clay modelling and glass painting. The teacher knows the interests of his/her students.

The teacher asks the students to sit in different groups as per their interest. Accordingly the students group themselves. One group gets engaged in drawing, another in clay modelling and yet another in glass painting. Each group does the activity unanimously with their friends.

Grouping students by their interest is found to helpful. The advantage of this method of grouping is that the students having the same interest can work better together. They can learn from each other, thereby improving their skills/ performance.

The disadvantage of this type of grouping is that students interested are limited to one/two areas only; hence lack of exposure may make their thoughts get crammed up.

- ***Grouping by Students' Choice:*** Allowing students to choose their group partners is another type of grouping. In this kind of grouping, students are allowed to pick a partner or group of students with whom they desire to work. The advantage of this type of grouping is that here the students can work more effectively in a collaborative way as they have chosen their own group partners. Having been given the freedom of choice, this kind of grouping is basically characterized by better understanding and even better team work. The disadvantage is that while allowing the students to choose their group partners, it may happen that a few of them are not included in any group. The freedom of choice, in case of improper exercising makes students indulge in gossiping or any such activity, which results in negligence towards work.
- ***Random student grouping (Heterogeneous):*** Grouping students by random can help prevent students from labelling other students as slow or advanced. Random student groupings can be accomplished by having students count off, pair up or any other method of class division.

The advantage of this type of grouping is that both slow and advanced students interact with each other and learn. Students help one another and rectify their errors without embarrassment. The disadvantage is that sometimes the brighter students might affect the progress of slower ones.

The more able students will tend to speed up, leaving the weaker ones far behind. Of other groups. There are two possible ways for you to communicate with the groups as shown in Fig. 5.1. In the first situation (Figure 5.1a), you as a teacher (T) can directly communicate with individual students(S) in a very small group without giving any scope for peer interaction.

In the second situation (Figure 5.1b) you communicate with the group as a member of the group. In this situation, you share with the students as equal partner in the group where each one (including you as a teacher) has the freedom of interacting with other members. Thus, in the first type, the teacher controls the total communication process whereas the second type is dominantly group controlled.

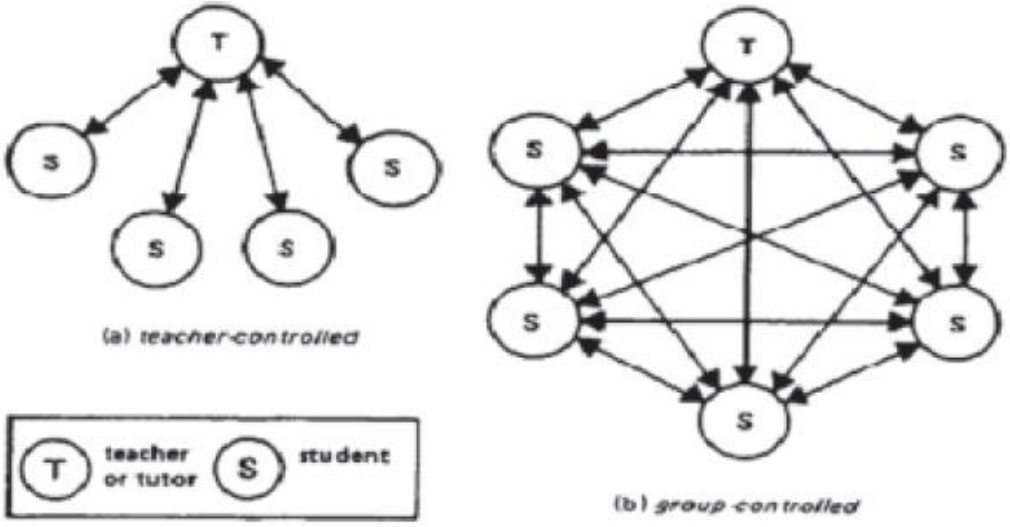


Figure 5.5: The Two Communication Patterns in Group Learning Situations (Source: Ellington and Earl, 1996)

Suppose you observe that a small number of students in your class have a specific learning problem like pronouncing English words properly or solving problems on time and work. In such a situation, you need to take full control of the group and directly discuss with each student about their problem. But, for other purposes the second type of communication gives better results.

Hence, while planning your lesson, instead of directly teaching the students together as a whole class, dividing them into smaller groups and encouraging participation in the group work would be more effective. The most important thing in forming groups is to ensure that the students in a group are able to work together comfortably and have lots of interaction among themselves. As a teacher you need to explain to the students how to work in groups effectively. You also need to establish opportunities for students to work together in meaningful and productive ways. It is in this context that students can develop and polish their skills of collaboration.

5.9.2 Management of Time and Space for Classroom Learning:

A very significant aspect of effective classroom management is time management. Time management is, setting and following a schedule in order to organize and prioritize the activities that are to be conducted in the classroom. Apart from time management, it is also important on your part to manage the space available in the classroom for students' learning.

A well-organized classroom not only keeps materials in order and accessible to students but also gives scope for a variety of learning situations. In this section, let us understand the techniques of effective management of time and space while teaching learning process takes place.

A. Management of Time:

Recollect what activities you normally do in a class within a period on any school day. Probably you adjust the seat arrangements of students according to your teaching plan, arrange the TLMs, explain the concepts, ask questions and correct the responses, demonstrate concepts and processes with TLMs, write and draw figures on the board, conduct group activities, consolidate the outcomes of the learning activities, give some tasks for evaluating the overall impact of the lesson and so on. You perform all these activities and more within a period of 40 to 45 minutes. Surely you must have realized that the management of classroom time is quite a challenging task even though it may appear to be simple. It is just not careful planning of instructional activities, but also giving close attention to how class time will be utilized. Is there a connection between learning time and student learning and growth? Well following two major findings have emerged from a number of studies:

- Students' achievement is higher when they spend more time engaged in learning activities (for example, doing experiments, observation, practice work, discussion, problem solving and reading).
- The amount of time students spent on learning differs practically from classroom to classroom.

However, according to the Right to Education Act, 2009, 800 instructional hours per academic year for class I to V and 1000 instructional hours per academic year for class VI to VIII is mandated for all schools. The teacher will spend minimum 45 hours in teaching including preparation hours in a week. By scheduling or devoting more time to a subject, you can increase your students' opportunities to learn. Engaged time is the essence of classroom learning. It is the amount of time your students actually work on any assigned activity e.g. working on written assignments, actively discussing a problem in a group, reading silently and listening attentively as you explain a subject. Of course, not all your classroom time is spent in learning tasks.

Some time is needed for taking attendance or moving from one activity to another. You may also take some time in tackling some off task behaviour by students. Think about your own classroom for a while. How much time will your students spend getting ready? Do they need to wait for your attention? Do they get restless before the end of the period? How much time is spent waiting for written assignment to be collected? This waiting time leaves students with nothing to do but entertain themselves usually by talking, playing with friends etc. Additional valuable time is lost as you endeavor to regain students' attention and refocus students for the next learning. Your classroom management procedures should keep children lively, alert and busy.

You can save time in the following ways:

- Prepare yourself for the classroom activities. Make sure that you clearly know what the next step is going to be.
- Keep all materials ready, and remind students what you expect from them as they move from one activity to the other.

- While giving verbal instruction, be clear and specific.
- Arrange the classroom so that students will not always need to leave the seat to start a new activity.
- Begin your lesson as soon as possible. True, some of your students may not be quite ready. A prompt decisive start will encourage the slow learners to pick up pace. Your well prepared lesson plan will help in reducing the wastage of time.
- Before starting a new activity, be sure that most of the students have an opportunity to complete it.
- Students should know beforehand where they should place their completed written work or projects (subject wise) labelled with their names.
- If the transition involves moving from an academic activity such as reading or solving problem or doing experiments, to a non-academic activity, such as recess, game or exercise, your students must understand how to behave and what to do as they leave the classroom.
- To prevent the existence of noisy lines in the room, rearrange seats assigning each student to a specified place in the line or in other lines.
- Give your students a short written activity before starting a new activity. Write the question or brainstorming activity on the blackboard. This also gives you a few minutes to arrange materials for the next activity.

B. Management of Classroom Space:

Well organized and well-furnished classroom motivates students for learning. It conveys the message that you care for your students. To make positive environments for learning in your classroom make sure that all necessary items are in place before the students enter the class. Even in a small school, with a few resources, a good teacher can create a well ordered classroom that encourages learning. Let us discuss some of the components of the classroom which need to be organized to make optimum use of classroom space.

- ***Classroom's Furniture and Floor Space:*** Here are some guidelines to consider for your classroom's furniture and floor space. In most of our classrooms in primary schools, students sit on the floor and on benches in some cases. Depending on the space available and the nature of the activity, you may use different sitting arrangements e.g. linear rows, semi-circle, circle, face to face etc. which will be discussed insection 5.4.3.Arrange all furniture in the room and make such sitting arrangement in such a way that the students can move in room comfortably and you can easily reach every student as and when required. This is essential for students to feel your personal attention and for you to observe students individually while they are engaged in the activities. Try to keep a significant portion of the room for shelves, almirah or other furniture where you can keep a variety of TLMs. You will learn how to arrange the materials (TLMs) in the classroom in the next unit.
- ***Wall space and Bulletin Boards:*** Wall space and bulletin boards can make a classroom lively and attractive and contribute considerably to student's independence and achievement.

Consider the following suggestions when you think about wall space and bulletin boards in the classroom.

- If you will use student assignment charts / projects, be sure to reserve large ones in prominent place for clear visibility of every student.
- Grade specific activities can be drawn or painted on the wall, so that students can individually or in the groups do these activities and learn.
- Designate space that will contain few exemplars of high quality student work.
- Keep some wall space that can intentionally remain blank. Use this area to create a working space for students.
- Try to find wall space, bulletin board space, where you and your students can place objects or materials that are personally interesting.

In addition to the basics of furniture arrangement, wall space and bulletin boards, you need to design a rich classroom environment. Classroom walls can be covered with many lists: such as, a sign board for attendance, colour chart, list of words, songs, riddles, daily routine, different types of activities etc. A message board can be placed in a prominent place of the classroom where you and the students write messages to each other. Set up a special book shelf for storybooks, big books, comic books, reference books. Paint the wall with different activities which are related to the contents/ competencies of a particular class. Through these wall activities, students will discuss among themselves in groups and learn from each other. Many times, these wall activities also promote self-learning. Even in the absence of a teacher, the students can be engaged in learning by using the wall activities.

- ***Learning Materials:***

Just as the appropriate use of furniture, use of floor and wall spaces aid to facilitate learners' interest in learning activities, a careful planning for placement of learning materials can also help in achieving these goals. Consider the following when you think about arranging learning materials in the classroom:

- Store materials that will be used often (e.g. books, paper, pencil, eraser, colour pencils, lab equipment) in places where students can access them easily. Learning materials that students will use less maybe kept in remote areas of the room.
- The materials which the teacher only needs should be kept in the least accessible area.
- Use boxes to keep supplies neatly organized rather than spreading them out on tables or shelves.
- Designate and label places in the room where students will keep their completed worksheet. In elementary classrooms, where the teacher teaches multiple subjects, it makes sense to have different boxes or trays for each subject. Use icons or colour code to help students for keeping their work if they are just learning how to read (for example; class 1 students) Teaching-learning materials in the classroom, their development, use, storage and maintenance have been discussed in detail in Unit 6.

C. Sitting Arrangement in Activity Based Classroom:

In **Unit 4 of Block 1**, you have learnt about different types of activities that you do with your students in the classroom. Sometimes you tell stories to students, or sing songs with them or conduct experiments and have relevant discussions.

Do your students sit in the same position for different type of activities? Well they need not sit in the same position as there are different sitting arrangements for different purpose which is discussed in this section.

The sitting arrangement of students may vary from one activity to another. Sometimes, you design an activity for the whole class, for small groups and also at times for individual students. You also design different types of activities for teaching different concepts. The types of sitting arrangement depend on the nature of the activity. Sometimes the activity demands for U shape seating and sometimes in circle.

Let us discuss different types of sitting arrangement.

- ***Sitting arrangement for whole class teaching:***

You are familiar with the sitting arrangement in a traditional classroom in which students sit in rows in the classroom and the teacher places himself/herself in front of the students as shown in Figure 5.6.

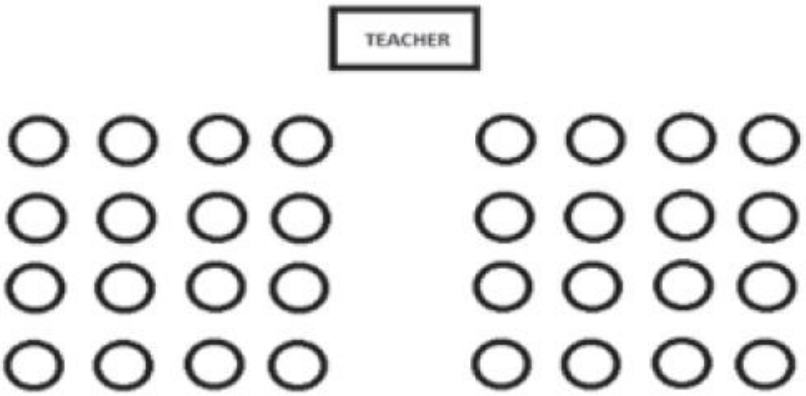


Figure 5.6: Sample of Sitting Arrangement for Whole Class Teaching

In this arrangement, the teacher only looks at the students sitting in the front rows and gives more attention to them. He/ She cannot give adequate attention to those sitting at the back of the class. Group work is not possible in this arrangement. Hence, in a class where students and teachers are engaged in several learning activities such sitting arrangements would be inappropriate. The arrangements would then be according to the requirements of the different types of activities conducted in the classroom.

- ***Sitting Arrangements for Teacher Demonstrations****:*

Suppose you are telling a story to the students in the class and making it lively by enacting with gestures and postures to arouse curiosity and interest among students. Everyone in the class tries to come closer to you so that he/she can see and hear you better. After sometime, they no longer sit in rows but you may find them sitting very near around you.

Therefore, when you tell stories, recite poems, solve mathematical problems on the board, conduct experiments and hold discussions with students, it would be better if you make them sit in a half circle in front of you as shown in the Figure 5.7. In this arrangement, you can have direct eye contact with every student. Students are able to listen to your voice clearly, read whatever you write on the board and can see the materials or experiments you are demonstrating.

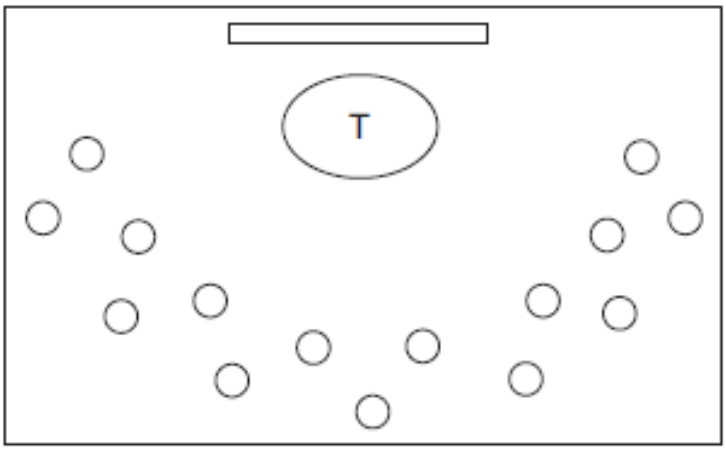


Figure 5.7: Sample of Sitting Arrangement for Teacher Demonstration

- ***Sitting arrangement for Group Activity:*** Consider the following situation:

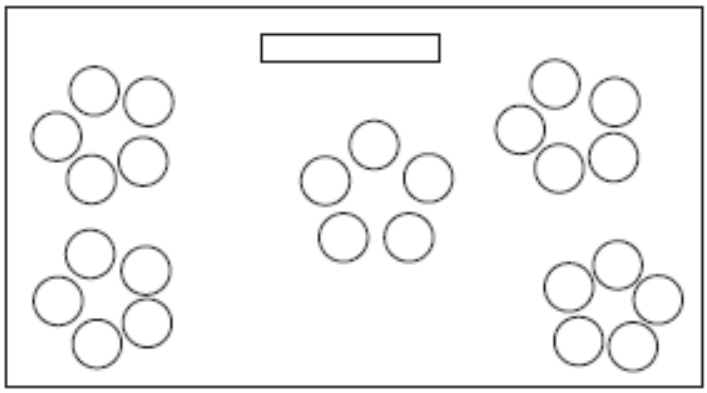


Figure 5.8: Sample of Sitting Arrangement for Group Activity

Small groups of 4 to 6 students are allowed to sit in circles in different parts of the room and hold discussions among themselves in the group and come out with a solution. The teacher can move around the groups to monitor the progress of activity and the involvement of each student in the activity. In group activities this would be a better sitting arrangement than sitting in rows or in half circles that we discussed above.

- ***Sitting arrangement for Group Competition****:*

Sometimes you conduct some activities which require competition among the groups. The competition among groups requires a sitting arrangement where students of one group sit in a semi-circle and face to face to those in the competing group (see Figure 5.9). Sitting in a semicircle helps the members of the group to have close discussion with each other. You can act as the anchor or the judge for the competition and take a middle position indicated by the dotted line in the figure. One group asks questions and other group members discuss among themselves and answer and *vice versa*.

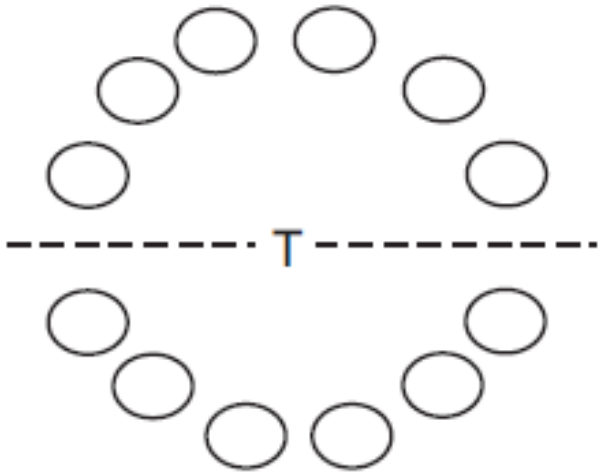


Figure 5.9: Sample of Sitting Arrangement for Group Competition

As a teacher you must know the benefits of different types of sitting arrangement. For effective learning of each child, only one type of sitting arrangement should not be followed.

5.9.3 Role of Teacher as Manager:

In the context of classroom management, the teacher's role is essentially that of a facilitator or manager. We know that a manager has to take decisions, control the situations, be spontaneous and resourceful to change decisions for better functioning of the organization if the situation so demands. Let us see how a teacher performs the role of a manager. The teacher plays various roles in a classroom, but most of these roles relate to that of a classroom manager. Effective teaching and learning cannot take place in a poorly managed classroom. If the students are disorderly and disrespectful, and no apparent rules and procedures guide behaviour, chaos becomes the norm. In these situations, both the teacher and students suffer. The teacher struggles to teach, and students most likely learn much less than what they should. In contrast, well-managed classrooms provide an environment in which teaching and learning can flourish. But a well-managed classroom does not just appear -it takes a good deal of effort to create and the person who is most responsible for creating it is the teacher. Let us discuss some of the roles of the teacher as a manager.

- For effective classroom performance, the teacher has to plan meticulously the learning activities, provision of material, sitting arrangements, assessment strategies in advance.
- The teacher must ensure to provide a learning friendly environment in the classroom so that the students can perform their best. Like a manager the teacher must take good care of the physical comfort and security of the students.
- Like a manager who ensures everyone in a team to get the work done, the teacher must ensure that every child in the class realize the right to participation, right to organization and right to information.
- Sound professional knowledge in content and pedagogy with bit of flexibility will encourage students to think independently, provide logical explanations and test the facts. By this their learning level will be enhanced. The teacher has to behave in a friendly manner in the classroom with students, like a manager having friendly approach to customers.
- The humane approach and proactive measures of a teacher encourage effective engagement of all students in the learning process. The output is maximal if the individual accountability is ensured by the teacher in group performance.
- Giving assignments, monitoring the progress of activities, evaluating the performance and providing feedback to students irrespective of their quality of performance will certainly add to gradual increment in their learning. A good manager always encourages people for their performance.
- Like the manager of any organization giving priority to maintain discipline in the system, the teacher should ensure discipline in the classroom. Discipline is regarded as a code of conduct binding both the teacher and the students in a relationship of mutual respect, not as rules and punishment in case of break.

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Chapter 6

Quality Teaching in Higher Education: Policies and Practices

6.1 What is Quality Teaching and why does it Matter?

Quality teaching is the use of pedagogical techniques to produce learning outcomes for students. It involves several dimensions, including the effective design of curriculum and course content, a variety of learning contexts (including guided independent study, project-based learning, collaborative learning, experimentation, etc.), soliciting and using feedback, and effective assessment of learning outcomes. It also involves well-adapted learning environments and student support services.

Experience showed that fostering quality teaching is a multi-level endeavor. Support for quality teaching takes place at three inter-dependent levels:

- **At the institution-wide level:** including projects such as policy design, and support to organisation and internal quality assurance systems.
- **Programme level:** comprising actions to measure and enhance the design, content and delivery of the programmes within a department or a school.
- **Individual level:** including initiatives that help teachers achieve their mission, encouraging them to innovate and to support improvements to student learning and adopt a learner oriented focus.

These three levels are essential and inter-dependent. However, supporting quality teaching at the programme level is key so as to ensure improvement in quality teaching at the discipline level and across the institution. Support for quality teaching can be manifested through a wide range of activities that are likely to improve the quality of the teaching process, of the programme content, as well as the learning conditions of students. Hybrid forms often prevail in institutions. These can include initiatives such as:

- A centre for teaching and learning development
- Professional development activities (e.g. in-service training for faculty)
- Teaching excellence awards and competitions for remarkable improvements
- Teaching innovation funds
- Teaching recruitment criteria
- Support to innovative pedagogy
- Communities of teaching and learning practices
- Learning environments (libraries, computing facilities…)
- Organisation and management of teaching and learning
- Support to foster student achievement (e.g. counselling, career advice, mentoring)
- Students' evaluation (i.e. programme ratings, evaluating learning experiences)

- Self-evaluation of experimentations, peer-reviewing, benchmarking of practices
- Community service and work-based programmes, development-based programmes
- Competence-based assessments

A number of factors have brought quality teaching to the forefront of higher education policies. Almost every education system has experienced substantial growth of student numbers in recent decades and the student profile has become more diverse. At the same time, higher education faces greater from students, parents, employers and taxpayers to account for their performance and demonstrate their teaching quality.

Institutions engage in fostering quality teaching essentially for the following reasons:

- To respond to the growing demand for meaningful and relevant teaching. Students as well as employers want to ensure that their education will lead to gainful employment and will equip them with the skills needed to evolve professionally over a lifetime.
- To demonstrate that they are reliable providers of good quality higher education, while operating in a complex setting, with multiple stakeholders, each with their own expectations (ministries, funding agencies, local authorities, employers).
- To balance performance on teaching and learning achievements along with research performance, since even for elite, world-class universities, research performance is no longer sufficient to maintain the reputation of the institution.
- To more effectively compete for students against the backdrop of higher tuition fees and greater student mobility.
- To increase the efficiency of the teaching and learning process as funding constraints become more stringent.
- Teaching quality throughout the world is also influenced by contextual shifts within the higher education environment. Current factors influencing the quality of teaching include:
- The internationalization of higher education
- The increasingly broadening scope of education and greater diversity of student profiles
- The rapid changes in technology, which can quickly make programme content and pedagogies obsolete
- The demand for greater civic engagement of graduates and regional development of higher education
- The increased pressures of global competition, economic efficiency
- The need to produce a skilled workforce to meet the challenges of the 21st century

6.2 Policy Lever 1. Raising Awareness of Quality Teaching:

6.2.1 Challenges:

Quality teaching matters but not all actors in higher education consider it a priority, understand and recognise what constitutes quality teaching, or are willing and able to play a role in ensuring it takes place in their institutions. Institutions play the key role in fostering quality teaching: national regulations rarely require or prompt academics to be trained in pedagogy or to upgrade their educational competences over their professional life span.

Emphasis on research performance – for both institutions and individual academics – has traditionally overshadowed teaching and learning for students in many countries. Some institutional decision making bodies might consider it almost incidental to the mission of higher education or may not have realized that their institutional policies send that message to their faculty. Academics themselves understandably place a very high value on research and are often acutely aware of the "publish or perish" challenge that plays a large role in determining a successful career path: they may worry that time spent on teaching would undermine their capacity to compete effectively in their research field. Yet many institutions, including major research universities, are challenged by the increasing diversity of students that has resulted from the increasing share of young people enrolling in higher education along with more mature students as well. At the same time, institutions are coming under greater public pressure to demonstrate that they are preparing their graduates for the labour market and to show what value students will get in return for the cost of their education – whether paid for by the student or the taxpayer.

Many institutional leaders are reconsidering how to manage the balance in fulfilling their teaching and research missions and how to raise the quality of teaching and learning they deliver. Yet top-down initiatives may encounter resistance from faculty that perceive it as an encroachment of academic freedom and care is needed to find the right balance between institutional leadership and managerial intrusion. Despite some resistance, much improvement has been achieved. Faculties have increasingly sought to strengthen the relevance of their programmes to societal and economic needs, and have become more willing to re-visit their role to strengthen the students' learning and their future employability. Many explore alternative pedagogies or adapt student-support to varied student profiles. Looking across countries, there is a common trend towards institutions adopting more strategic approaches to their development. Many institutions have established explicit strategic objectives (sometimes prompted by contractual agreements with funding agencies) – that focus their mission, streamline their activities and guide their operational planning. These strategic objectives can also be used to signal an institutional commitment to fostering quality teaching and provide an anchor for developing a coherent set of initiatives – at institution, department, school or programme level – and monitoring progress towards better results.

6.2.2 Pointers for Policies and Practices:

a. Prioritise quality teaching as a strategic objective:

- Set quality teaching as a strategic objective for the institution to signal the institution's commitment to fostering continuous improvement in teaching.

b. Establish a teaching and learning framework:

- Develop an institution-wide framework for teaching and learning that reflects the mission, values and specialties of the institution and defines the objectives of teaching and the expected learning outcomes for students.
- Ensure that all specific teaching and learning frameworks at department, school or programme level are consistent with the institution-wide framework.

- Engage the whole community (full time faculty and part-timers, researchers and teaching-only faculty), and include students viewpoints in the development of these frameworks, to ensure a broadly shared understanding of quality.
- Align the teaching and learning process as well as student assessment to the teaching and learning framework.

c. Promote quality teaching within and outside the institution:

- Explore every opportunity to foster discussions on quality teaching, for instance as part of programme (re-)accreditation, institutional audits, publication of international rankings, appointment of new university leaders, implementation of national reforms.
- Use various avenues and contexts (e.g., mission statement, institutional policies such as promotion and salary augmentation, support for institutional and national teaching awards, etc.) to convey to the academic community explicitly that teaching is important and valued.
- Advocate quality teaching nationally or regionally, and invite decision-makers to place support for teaching and learning high on their political agenda.
- Engage in national, regional and international networks to share best practices in quality teaching and hold national or regional events (conferences) giving exposure to institutional achievements on quality teaching.

d. Strengthen links between teaching and research:

- Explore how the research activities of the institution affect the policies supporting teaching and learning (e.g., in terms of learning environment, curriculum design, students assessment).
- Provide support for faculty involved in fostering quality teaching so that their engagement does not undermine their careers as researchers.
- Build research capacity through the promotion of research-teaching linkages, such as:
- Demonstration of how research informs teaching
- Engagement in research-inspired teaching
- Development of undergraduate students' research-skills
- Engage undergraduate students in carrying out research as part of the teaching and learning strategy and encourage and support undergraduate students to publish their research.
- Cross-fertilize professional development for teaching and research so as to increase mutual learning. Avoid distinctive professional development paths.

6.3 Policy lever 2. Developing Excellent Teachers:

6.3.1 Challenges:

The expansion of higher education, increased emphasis on students' learning outcomes and the advent of new pedagogical approaches – and new pedagogical opportunities afforded by technology – all point to the need for a new profile for teachers in higher education that includes pedagogical competencies.

Teachers are also more often expected to be engaged and proficient in curriculum design, project based-learning, new forms of peer and group assessments, fundraising and regional networking, as well as more conventional class teaching. Multidisciplinary collaborations, international programmes and the integration of new technologies all add further complexity of the teaching task.

Some institutions have tried to address these needs by recruiting experienced practitioners working in the corporate world or public services. But while these individuals are experts in their field, familiar with the technology needs of their profession and often bring managerial skills, their pedagogical expertise may be as limited, or even more so, than faculty with extensive teaching experience.

Whether teachers have spent their careers in academia or have extensive experience as practitioners, the key challenge for quality teaching is to develop subject-specific experts into excellent teachers. There is evidence that participation and engagement in professional development activities are related to the quality of student learning. "Provision of opportunities for professional learning and development, and obtaining relevant teaching qualifications, and establishing requirements that professional development and qualifications are undertaken are indicators of an institutional climate that recognise the importance of the preparation of staff for teaching" (Chalmers, 2007).

Many institutions are therefore keen to provide professional development to faculty. But the reality is that professional development for teachers is often disconnected from the educational objectives of the programmes – even though the support provided may be in response to specific requests received from faculty. Thus a well-designed professional development programme needs to be an outcome of a collaborative reflection on the quality of teaching and learning that is aligned with university values, identity and faculty expectations. This reflection requires time, conviction, motivation and openness. It assumes that not only the individual teachers are concerned, but also deans, heads of programmes and other team leaders who are drivers of change.

This collaborative process not only provides a firm foundation for determining the pedagogical competencies that teachers need to develop and the support they will require but also helps to build collective commitment across faculty to the objective of improving teaching quality. The clarity provided will also make it easier to establish what instruments and support measures teachers actually need to produce real improvements in teaching quality.

6.3.2 Pointers for Policies and Practices:

A. Anchor Teaching in the Quality Culture of the Institution:

- Support the scholarship of teaching and learning as evidence of institutional commitment and contribution to the quality of teaching and learning.
- Promote the internal quality culture through active dissemination and make sure teachers know the teaching and learning framework they operate within and why (institution/programme/student-teacher interaction).

- Ensure that all initiatives to foster quality teaching involve teachers from the outset as well as deans, heads of programmes and other team leaders who are drivers of change
- Allow adequate time, human resources, funding and facilities to ensure that quality improvement initiatives meet the needs of teachers and foster the sense of ownership amongst the community.
- Develop appropriate tools to monitor teaching quality (e.g. through surveys) and ensure that these are well-designed to provide useful, constructive and timely feedback to teachers.
- Encourage teachers to link innovations in their teaching practice to the institutional teaching and learning goals (e.g., submissions for pedagogical innovations must demonstrate alignment with the institutional educational model).

B. Identify and Articulate Pedagogical Competencies Required for Quality Teaching:

- Engage in a collaborative process to identify and articulate the pedagogical competencies that teachers need to deliver quality teaching and learning that reflects the institution's mission and core values.
- Ensure that individual teachers, along with deans, heads of programmes and other team leaders who are drivers of change are involved in defining these pedagogical competencies and any associated quality benchmarks or performance standards.
- Ensure that all teachers are aware of these pedagogical competencies and use them as an anchor for professional development and as a basis for assessing improvement in their teaching practice.
- Define a set of indicators of excellence in teaching (as well as in other areas) that the institution may use to encourage improvement, evaluate performance, and take into account in decisions concerning tenure and promotion.

C. Upgrade Pedagogical Skills through Professional Development:

- Provide professional development that responds to the educational goals of the institution and fits in with its core values, reflects the pedagogical competencies required for quality teaching, and engages teachers.
- Assign explicit and more specific objectives to professional development (e.g., "embedding learning outcomes in assessment methods" rather than "improve teaching").
- Provide resources and ensure that appropriate experts are available to support the professional development of faculty (e.g., course and programme design, teaching skills and competencies required by the labour market, assessment of student learning, using technology in teaching, etc.).
- Include professional development for academic leaders (e.g., transformational leadership, community building) to strengthen their contribution to quality teaching as well as the development of the institution.
- Provide an effective venue for discussions and experience sharing on teaching and learning practices (e.g., a Learning and Teaching Centre), that is visible and valued by the academic community, either at institution, department or programme level.
- Encourage peer-evaluation, constructive feedback and coaching as ongoing practices to foster a "learning community" approach to quality teaching.

- Monitor the effectiveness of professional development through its impact on teaching quality.
- Adapt professional development to different places and paces according to the mission of the institution, its programme specialties and niches.
- Tailor professional development within the institution-wide teaching and learning framework, to meet the needs of specific groups, for instance:
- Adjunct-faculty, as occasional teachers, may need to further assimilate the broader educational goals of the institution.
- Newly-recruited faculty might need to receive initial training, either before commencing teaching or during the first year. They could also benefit from being assigned a teaching mentor.
- Full-time faculty might need support to manage changing workloads and student mix.

D. Support Inspired Teaching:

- Identify champions of teaching excellence, examine what makes their teaching excellent,
- Publicize their accomplishments and use them as role models for others.
- Broaden the scope of teaching excellence to include heads of departments, programme
- Leaders and team leaders, who are able to inspire and motivate their peers to improve their teaching.
- Promote the scholarship of pedagogy in higher education and encourage its development as an academic discipline.
- Promote the diffusion of excellent practices via a wide range of tools (discussions, tutorials, toolkits)

6.4 Policy Lever 3. Engaging Student:

6.4.1 Challenges:

Students' capacity to leverage quality is immense provided students are given the right tools at the time and clarity on the objectives of their engagement. Student engagement can take different forms (on platforms, on boards, broad student satisfaction surveys, "instant feedback" techniques etc).

Student engagement is most powerful as a driver of quality teaching when it involves dialogue, and not only information on the student's experience. As students are the intended beneficiaries of quality teaching, they are able to provide crucial "customer feedback" not only on what works well but also on what they would like to be done differently and how.

However obtaining constructive feedback from students is not a straightforward initiative. Students may be reluctant to take up such a role and they may be dubious about the added-value of their contributions and believe that their views will be ignored. These concerns may be compounded if it is difficult for them to see evidence of action as a result of the various evaluations they participate in. It is therefore crucial to render students' evaluations meaningful to them if they are to be useful to the institution in promoting teaching quality.

Some students may underestimate the constraints that institutions face and expect unrealistic changes. Others may be inclined to approach evaluation as a political issue and take a more obstructive than constructive attitude to it.

From their side, the academic community might be hesitant to entrust students with a role in contributing to or critiquing academic-related matters, not least because of concerns about the reliability and fairness of some instruments for gathering student feedback. In some settings, academics might also be concerned that some students might use evaluation of their teachers as a bargaining chip, for example, to seek a higher assessment grade.

Despites these obstacles, it is worth recalling that students everywhere in the world are continuously making their own assessments of their teaching and learning experience, whether or not they have a channel through which to express them. Such insights provide an extremely valuable input to the process of improving quality teaching, but only if collected and analysed in an appropriate way. Indeed more rigorous approaches developed within the institution may provide an important counterbalance to the websites and social media channels that have sprung up for students to express views on their teachers.

Distinction should be made between two types of student engagement: formal representation (e.g., serving on advisory committees or decision-making bodies) and participation in educational changes. The role to which students are entitled depends very much on the national context and institutional practices. Yet even in countries where students are legally recognized as powerful and legitimate actors – and certainly elsewhere – the contribution that students can make to enhancing quality teaching depends on the institution's willingness and capacity to involve them. Some deans or programmes leaders are champions in involving students in quality improvement.

6.4.2 Pointers for Policies and Practices:

A. Give Students a Clear Role in Fostering Quality Teaching:

- Recognise the potential for students to play an active and constructive role in fostering quality teaching.
- Build up trust between faculty and students by making the objectives of their role explicit and effective.
- Involve students in developing the teaching and learning framework and ensure that it incorporates what quality teaching means for them.
- Assign a responsible role to students in the implementation and evaluation of quality teaching and learning.
- Develop the capacity of student bodies to become reliable partners when consulted on teaching matters or when serving as representatives on relevant committees.
- Establish an internal forum open to all students to share and discuss the teaching and learning strategies, at the appropriate levels (programme, department and institution).
- Pay attention to varied student viewpoints according to their status and seniority (e.g., freshmen react differently from doctoral students but their views are worth considering).
- Reward students who play an active role in fostering quality teaching (e.g., extra credits).

B. Develop Reliable Instruments and Techniques for Gathering and using Student Feedback:

- Draw on relevant expertise to design instruments for collecting student feedback and develop guidelines to assist faculty in identifying what instruments are best suited to which circumstances and for which purpose.
- Seek to improve the mechanisms for ensuring that feedback from students is acted upon.
- Provide professional development for teachers to learn how to use student feedback most effectively to improve their teaching practice.
- Promote a culture of ongoing dialogue between teachers and students in collaboration for improving quality teaching and learning.
- Provide incentives for programmes that implement methods to engage students in relevant and active learning (e.g., new curriculum, project-based learning, new methodologies, active learning classes, cooperative programmes, etc.).
- Monitor results that arise from student evaluations and inform staff and students about the actions taken or the reason why action was not appropriate.

6.5 Policy Lever 4. Building Organisation for Change and Teaching Leaders:

6.5.1 Challenges:

Change is conducive to improved quality teaching and learning only to the extent that an appropriate internal organisational support is in place. Institutions are complex adaptive systems and there is no single pathway to make change happen and achieve real improvements in teaching quality. Moreover, effective change is typically driven by a combination of top-down and bottom-up initiatives that changes and evolves over time.

Anyone in an institution can act as a change agent (leaders, faculty, students, support staff) provided they understand the process of change and are committed to the vision underpinning the strategic objective of raising teaching quality. A good understanding and appreciation of the role of change agents across the institution, based on a mutual respect for the role each plays (from leadership on institutional policies to innovation in faculty teaching practice), is crucial for the success of reforms and building a quality culture.

There can be tensions between institution leaders seeking to change the culture of the institution through centralized steering and the collegial culture that reflects the discipline-specific features of academia. If connections have not already been built between the two approaches, then these tensions will slow the progress that can be made on fostering quality teaching. Indeed, when strategies are implemented from the centre in a top-down approach, with little or no engagement from departments, faculty within departments tend to ignore them (Gibb, 2010). Another challenge can arise from confusion between provisions designed to manage teaching and learning and those for the development and improvement of teaching and learning. Systems for the effective management of teaching and learning (e.g., running electronic learning management systems, managing accreditation procedures, organizing programme supervisions) play an important administrative role but they are not designed to be used to for development or improvement of teaching and learning.

Above all effective leadership is crucial to quality improvement. Institutional leadership and decision making bodies have a fundamental role to play in shaping the institution's quality culture. They are often the initiators of quality teaching initiatives and their approach directly affects the outcome of these initiatives.

Effective leadership is more difficult if it is not coupled with organisational provisions like a specific unit to support quality teaching and learning and to ensure that leadership initiatives are followed through and that the institution's conceptual approach to teaching quality are reconciled with practical realities across disciplines, programmes and departments or schools.

6.5.2 Pointers for Policies and Practices:

A. Map the Distribution of Responsibilities in Teaching and Learning:

- Identify who is in a position of authority to effect significant strategic change and enforce institution-wide policies with respect to teaching and learning
- Clarify the ownership of pedagogical development and develop a clear-cut understanding of these responsibilities at departmental or school level.
- Identify who is capable of successfully implementing reforms within and across departments either because of their position of authority or because of the respect of their colleagues and seek to strengthen their commitment to improving quality teaching.

B. Foster Leadership on Quality Teaching:

- Assign institutional leaders, heads of departments, programme leaders and directors of supporting services explicit responsibilities for fostering quality teaching and learning.
- Ensure that leadership responsibilities are matched with the resources and the tools needed to deliver results.
- Create an environment where everyone (teacher, student, support staff, etc.) operates within a clearly identifiable leadership structure (e.g. programme leaders).
- Foster effective leadership competencies at all levels within the institution.
- Provide attractive career paths for those taking on leadership responsibilities and ensure appropriate compensation (e.g. financial support, career upgrading, diminished teaching load).

C. Ensure Consistent Implementation of Institutional Teaching and Learning Strategy:

- Ensure that the institution's teaching and learning framework can be easily adapted by each faculty member to reflect their values, ethos and modus operandi and then applied in their own teaching practice.
- Monitor progress in implementing the teaching and learning framework across each level of the institution and regularly report results to heads of departments, deans, programme leaders and institution leaders.
- Develop appropriate platforms for sharing experience and initiatives across the institution.

D. Establish a Specific Unit to Support Teaching and Learning:

- Establish a specific unit dedicated to quality teaching (e.g. a Teaching and Learning Development Unit) to explain, advocate and support the strategic objective of teaching quality and the effective implementation of the institution's teaching and learning framework.
- Ensure the unit has a clear mandate, well-defined responsibilities and reporting arrangements, and the resources to carry out them out.
- Ensure that the unit is located in the most effective position with the institution to be able to carry out its role effectively, given the institution's context and culture and use the unit to strengthen connections between institutional leaders and departments, schools and programmes.

E. Entrust the Specific Unit with Wider Responsibilities:

- Combine research and service-type activities so the unit can offer technical assistance and conceptual reflection and support on teaching and learning strategies, based on a robust evidence base and solid understanding of the literature.
- Develop institutional research on teaching and learning to enable the unit to provide pedagogical resources, disseminate best practices in teaching and learning, and offer professional development opportunities.
- Involve the unit in providing a bridge between teaching and learning and the institution's support services (HR, property management, security management, financial affairs) to ensure these services are well-aligned with the institution's teaching and learning framework.
- Involve different departments and disciplines in the unit's work, to incorporate diverse experience of teaching and learning and ground operational support on wide-ranging experience and understanding of discipline-specific considerations.
- Stimulate research on teaching and learning improvements and publish outputs nationally and internationally.

6.6. Policy Lever 5. Aligning Institutional Policies to Foster Quality Teaching:

6.6.1 Challenges:

The individual performance of each faculty member is a crucial factor in quality teaching. But gaining real improvements in teaching quality can be achieved more rapidly and more cost-effectively if approached as a collective effort that is underpinned by well-aligned institutional policies. Inter-linkages between areas (disciplines, fields) and processes (lecturing, instructing, counselling) are characteristics of institutional complexity that can be turned into levers for change and improvement in teaching quality.

But stratified policies or department-wide or individual initiatives can prevent such synergies emerging. For instance, a career development policy that emphasizes scientific publication may undermine institutional attempts to reward commitment to quality teaching. Institutions should therefore seek to enhance the coherence of their policies (including those apparently peripheral to quality teaching) to ensure that they support

enhancement of teaching quality. A systematic approach would ensure that the various department- or programme-wide policies are consistent with the strategic objective of quality teaching and fully compatible with the institution-wide orientation of the teaching and learning framework – while accommodating the different needs and contexts that apply to individual departments and programmes.

Five areas stand out where institutional policies may need closer alignment to support policy teaching: human resources; information and computing technology; learning environments; student support; and internationalization.

Other elements of the policy mix are worth scrutinizing (e.g. financial management, public relations and marketing, R&D management, regional/industrial partnerships for innovations). For example, an institutional strategy to strengthen engagement in regional innovation or community development might also play a role in leveraging the quality of teaching.

6.6.2 Pointers for Policies and Practices:

A. Strengthen Coherence Across Policies:

- Identify the fields and processes where the impact of policies can converge and be mutually reinforcing.
- Review policies regularly and systematically to detect inconsistencies across institutional policies or between policies at programme, department/school and institution levels.
- Anchor departmental or programme policies into the institution-wide teaching and learning framework and ensure the consistency across levels.
- Benchmark policy coherence with similar complex organisations (e.g., large service-sector companies employing high-skilled staff or operating in high-tech environment).

B. Coordinate Quality Teaching with Human Resources Policies:

- Ensure that human resources policies (recruitment, remuneration, career progression, professional development etc.) support the strategic objective of quality teaching and reflect the institution's teaching and learning framework.
- Incorporate pedagogical competencies in the human resources framework for evaluating performance and determining career progression.
- Quantify the different elements affecting faculty workload (e.g., assessment of students, online teaching, face-to-face tutorials, students advising, project monitoring, administrative work, professional development, corporate partnership, work-placement supervision) and their contribution to effective teaching and learning.
- Adapt the remuneration package to better reflect the full range of effective teaching and learning practices (e.g. moving beyond class contact hours).
- Examine the correlation between teaching engagement and research activities, and identify how to manage the balance between the two in determining career paths and remuneration.

- Where possible and relevant, include HR staff in discussions on improvement pathways and performance-related thresholds.

C. Coordinate Quality Teaching with Technology Policies:

- Explore the impacts of the introduction of technology into teaching and learning practices (e.g., on management process, learning outcomes, assessment, inter-activity, etc.).
- Assess the added-value of the use of technology in teaching on learning outcomes and ensure this information is provided to the institution's ICT decision-makers.
- Involve IT service providers in discussions with academia and students so as to better match technical aspects with educational requirements.
- Consider partnering with virtual universities or other providers who have demonstrated effective use of IT in teaching and learning.
- Support faculty to develop their IT skills and prompt them to update their knowledge and digital capability as well as informing them on the opportunities that IT can provide for enhancing teaching and learning.

D. Coordinate Quality Teaching with Learning Environment Policies:

- Ensure the values of the institution are reflected in the learning environments. For instance, the promotion of diversity should entail adequate premises and provisions amenable to every kind of students irrespective of their gender, origin, background…
- Make sure the learning environments reflect a range of teaching modes (e.g., interactive learning) and ensure that they allow for experimentation and easy adaptation to changes in teaching and learning processes.
- Align construction and refurbishment projects to the teaching and learning framework of the institution and involve the institution's property planners and managers in discussions on educational matters.
- Explore how learning environments can be made more conducive to exchange of knowledge, information and ideas on and out of campus, and encourage staff and students to interact within and across disciplines.

E Coordinate Quality Teaching with Student Support Policies:

- Embed policies on student support in the teaching and learning framework (induction, accommodation, career counselling…).
- Identify special learner types (e.g. students with disabilities, deprived or at-risk students) and provide specific provisions as well as personalized study plans.
- Provide induction programmes to students unfamiliar with the goals and philosophy underpinning new paradigms of teaching and learning (e.g. how to become an active student in class).
- Increase institutional awareness of the learning strategies implemented in departments (e.g. learning communities, student-teacher interaction, student assignments, etc.) and ensure they are aligned with the institution's teaching and learning framework.
- Support the evaluation of effectiveness and efficiency of student support provisions (e.g. tutorship, counselling).

- Increase responsiveness to the results of surveys and programme evaluations by ensuring remedial actions are taken where needed.

F. Coordinate Quality Teaching with Internationalization Policies:

- Exploit knowledge gained by students/faculty going abroad and set ways of integrating the added-value of in-coming students/faculty on campus so as to capitalize on this experience to enhance quality teaching.
- Identify R&D and innovation projects that offer international teaching and learning opportunities (e.g., enrolling international interns) and ensure their co-ordination with the internationalization policies.
- Engage where possible with evolving processes of international quality assurance and external reviews, including subject benchmarking and benchmark the quality of joint programmes internationally.

6.7 Policy Lever 6. Highlighting Innovation as a Driver for Change:

6.7.1 Challenges:

Innovation can be one of the main drivers of quality teaching improvement when supported at institutional level. Innovations in teaching and learning can be spurred by a number of factors. Research and development stimulates the search for creative solutions for problems and challenges at various levels and promote new forms of student learning by problem-solving. Pressure from employers and students (including an increasing proportion of lifelong learners) to deliver learning outcomes more relevant to corporate and societal demands, including skills such as critical thinking, skills. Self-management, teamwork and communications, as well as technical or discipline-specific

Internationalization can be a powerful driver to spur change and innovation in teaching and learning practices by providing exposure to new and different practices. It can also help institutions to think outside the box in response to new challenges. Preventing student drop-out and attracting disengaged or at-risk students can also lead teachers to innovate in order to better adapt to students' needs. Innovative teaching is often the response to specific situations (e.g. changing student profiles, new job opportunities to fulfil) and can involve the content of the programmes offered, pedagogy, student support, student assessment and/or the learning environment.

Innovation typically requires experimentation with alternative pedagogical approaches and alternative teaching practices that mostly occur at the programme or class level. Scaling up successful innovations and ensuring they become common practice requires appropriate provisions and managerial capacities. Other innovations may, by their nature, require concerted action on a larger scale from the outset. Innovation in teaching and learning practices can also present institutions with some risks. Being in continuous change mode may lead to uncertainty about the quality and identity of the institution. Going too far in innovation may not only frighten potential students and faculty but also make higher education less accessible (e.g. high-end technology is not universally available and that can disadvantage some students).

Significant innovations need careful pre-implementation scrutiny and ongoing monitoring for unexpected drawbacks. Some innovations may also have unintended or unexpected repercussions elsewhere or may falter if changes to other policies and practices are not made. The institution should also pay careful attention to the evaluation of innovative practices and monitor the broader impact of innovation on teaching and learning outcomes.

6.7.2 Pointers for Policies and Practices:

A. Encourage Teachers and Students to be Active Innovators:

- Encourage experimentation and innovation in teaching practices, while recognising that experiments that fail are also important learning opportunities.
- Foster exploratory approaches and incremental changes, including pilot testing and careful evaluation of innovative teaching methods.
- Involve students in the design, implementation and evaluation of innovative teaching and learning experiments.
- Open up programme design, implementation and evaluation to external stakeholders, such as employers and local communities, via project-based learning or work-placement.
- Instil a research mindset at every level as it brings about fundamental changes in the way education is delivered: research-minded students are more used to engaging in critique, challenging tradition and contradicting existing academic practice.
- Encourage collaborative innovation across the institution, including through multi-disciplinary programmes, and support team approaches to innovative teaching and learning.
- Adapt the evaluation of teachers' performance to encourage and reward innovation appropriately.

B. Strengthen Institutions as "Learning Organisations":

- Deepen capacity to diagnose teaching and learning situations, anticipate challenges (e.g. through institutional research), pinpoint the institution's most critical issues, and identify internal and external factors conducive to, or inhibiting innovation. Undertake meta-evaluation to identify predominant and recurring issues.
- Promote a climate of continuous reflection on the relevance and effectiveness of the educational offering and question beliefs and mindsets, values, traditions and habits underpinning educational practices.
- Sustain collaborative learning about quality improvements of innovations, learn from failures and engage reflection on the scope and potential pitfalls of scaling-up the innovation.
- Foster an open-oriented approach towards innovations in teaching and learning practices, by encouraging communication networks across faculty and disciplines, as well as with other institutions, partnerships and agencies, domestically and internationally.
- Encourage the use of assessment for learning (formative assessment) as well as assessment of learning in evaluating the impact of innovative practices.

- Ensure that administrative and technical staff are also involved in the design and implementation of innovative practices and value their perspectives on effectiveness of teaching and learning.

C. Embed Support for Innovation in Other Institutional Policies:

- Monitor innovations in teaching and learning taking place across the institution to ensure that they are consistent with the institution's overall strategic development, to identify recurring obstacles and to detect situations of "innovation fatigue".
- Develop frameworks or guidelines to foster innovation in teaching while managing the risks and taking into account human engagement and organisational culture. These could be added to the teaching and learning frameworks adopted at institution and department, school or programme level.
- Provide knowledge sharing platforms and other instruments to share good practice on developing and evaluating innovations, follow up experiments, capitalize on innovative practices and promote their dissemination.
- Include innovation in teaching and learning in quality assurance systems and emphasize the role of quality assurance to support continuous improvement of teaching and learning.
- Collaborate with external quality assurance systems to integrate innovative features and assess their impacts accordingly.

6.8 Policy Lever 7. Assessing Impacts:

6.8.1 Challenges:

Fostering quality teaching as with the pursuit of any objective requires a realistic assessment of the starting point – the current level of teaching quality – and a way to measure the progress made. Yet the quality of teaching in higher education is influenced by an array of factors that are both internal and external to the institutions. Quality teaching is one element alongside others (e.g., research, innovation and social responsibility) to be evaluated in assessing the global performance of an institution, with the emphasis depending on the institution's mission and strategic objectives. More generally, evaluating quality teaching needs to be seen within the broader institutional context, closely linked to quality assurance mechanisms and supported by the development of suitable measurement tools that are robust, reliable and meaningful.

A distinction also needs to be made between evaluating support for quality teaching and evaluating the quality of teaching per se. The evaluation of support for quality teaching is widely accepted by academia. Institutions have dedicated resources to monitor the implementation of quality teaching support (via progress reports) and keep track of the outputs. Institutions evaluate the unfolding of the initiatives as well as the level of satisfaction of beneficiaries. Ministries, funding authorities and quality assurance bodies have also been influential in expanding the evaluation of quality teaching support. Yet institutions can lag in appraising the quality of teaching per se. There is relatively little evidence demonstrating the impact of professional development courses or students evaluations on improving teaching and learning outcomes.

This information vacuum can undermine the legitimacy of institution wide quality teaching policies, as no tangible facts are available to demonstrate their accuracy and effectiveness. Evaluation of the quality of teachers and their teaching will remain challenging as long as stakeholders such as students and employers, and the teachers themselves, question their reliability and usefulness. At the same time, limited use is made of the results of existing evaluations, such as student evaluations of programmes. These are widespread across higher education but often poorly connected to initiatives to improve quality or used as a lever for change. Faculty may not see the value-added of all the different evaluations that occur on a cyclical basis in their institution and may complain of "evaluation fatigue". They may already be subject to assessment through the accreditation of programmes and institutional audits, accountability controls by national agencies, research assessments of their laboratories and peer-review of their publications. They may also be asked to contribute to stock-taking and monitoring exercises conducted by committees within their institutions or their partners or external bodies. Faculty may feel reluctant when evaluation of teaching is introduced into the mix, especially if summative and formative evaluations of teachers are not clearly distinguished and well-articulated with other evaluation processes.

6.8.2 Pointers for Policies and Practices:

A. Embed Evaluation of Teaching Quality within Broader Evaluation Processes:

- Ensure that assessments of teaching quality and evaluations of initiatives to foster quality are included in broader quality assurance processes and assessments of overall institutional performance.
- Articulate the inter-connections between different types of internal and external evaluations in use to promote coherence across them and develop a clearer understanding of the contribution each one makes to quality teaching.
- Eliminate those evaluation processes that do not contribute significantly to achieving the institution's objectives and verify that data collected is relevant to the strategic goals of the institution and appropriately and fully used.
- Distinguish between evaluation of teaching performance and evaluation of measures to support quality improvement and develop approaches fit for each purpose.
- Build evaluation into the design of every quality teaching initiative and specify the criteria and evidence for judging success and communicate these publicly.
- Develop benchmarks for teaching quality and seek to build a knowledge base of evidence connecting initiatives to support quality teaching with real improvements in quality teaching and with impacts on learning outcomes.
- Encourage a culture of evidence-informed teaching practice and use evaluations to deepen understanding of the relationships between inputs and processes and learning outcomes and identify external factors likely to affect them.

B. Develop an Array of Evaluation Instruments:

- Develop an array of instruments for evaluating teaching quality, clarify the purpose and appropriate use for each instrument and ensure that it is fit-for-purpose, reliable, credible – and used. Both quantitative and qualitative instruments can be used and can complement each other.

- Draw on technical expertise in evaluation to define measurement tools together with programme leaders and teachers and include the views of student, employer and other stakeholders.
- Identify specific evaluation instruments to appropriately capture the effectiveness, efficiency, relevance and usefulness of quality improvement.
- Benchmark situations – across programmes, departments or institutions – where comparative data are available, while ensuring that benchmarks are well-chosen and relevant to the institution (e.g. not every university can be in the top-100, however that is measured).

C. Emphasise the Careful Interpretation of Evaluation Results:

- Ensure that evaluation results are interpreted, presented and used in ways that are consistent with the educational priorities of the institution and lead to improved teaching and learning.
- Draw assistance from experts/consultants/faculty developers in interpreting evaluation results and formulating recommendations for change, and to observe and provide ongoing feedback to faculty and students as the recommendations are being implemented.
- Provide support and professional development for teachers on how to interpret evaluation results and transform them into more effective teaching practices and support them through mentoring, coaching and further professional development etc. to become more effective teachers.
- Use programme evaluations by students to stimulate a dialogue between faculty and students on the curriculum, structure of courses, learning environment, student support and other constituents of quality.
- Ensure an institution-wide coordination of the evaluations carried out at department or programme levels, so as to allow a consistent amalgamation of results.

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Chapter 7

A Policy Perspective

7.1 A Curriculum for Equality?

The commitment towards achieving equality through education has consistently and unequivocally been voiced through the policy documents of independent India, including the reports of the two Commissions related to school education and the National Policy on Education 1986 with its review in 1992. The Secondary Education Commission Report (1952) had envisaged schools to play a crucial role in developing democratic citizenship, emphasizing that "democracy is based on faith and in the dignity and worth of every single individual", where the "innate 'worthfulness' cannot be eclipsed either by economic or racial or social consideration (p. 20)." As the first commission on school education of an independent country carved out of a traumatic partition, it sought schools that would lay the foundation for patriotism and cooperation, based on "an openness of mind and largeness of heart", and not through the "dragooning of different beliefs, ideas, tastes and interests into uniformity, which may possibly make for efficiency in a narrow and inferior sense, but inevitably impoverish life and curb the free expression of the human spirit." It called for educational opportunities that would translate into practice a passion for social justice *"inspired by the faith that social purposes are worth striving for, that life in a democratic set up is not playing for one's own hand but calls for a strenuous endeavor to equalize opportunities for all, and an unremitting fight for justice for the under-privileged."*

The subsequent Education Commission (GOI, 1966) had focused on a socialist democratic vision of national development, where equality of "education is deliberately used to develop more and more potential talent". Warning that "History shows numerous instances where small social groups have used education as a prerogative of their rule and as a tool for maintaining their hegemony" (Section 1.16), it had strongly recommended the Common School System (Section 1.36). It declared that: "It is the responsibility of the education system to bring different social classes and groups together and thus promote the emergence of an egalitarian and integrated society. But at present, instead of doing so, education is itself tending to increase social segregation and to perpetuate and widen class distinctions…. The position is thus undemocratic and inconsistent with the ideal of an egalitarian society.

The children of the masses are compelled to receive sub-standard education … while the economically privileged parents are able to 'buy' good education for their children. This is bad not only for the children of the poor but also for children from the rich and privileged groups. It gives them a short-term advantage in so far as it enables them to perpetuate and consolidate their position…. By segregating their children, they prevent them from sharing the life and experiences of the children of the poor and coming into contact with the realities of life. In addition to weakening social cohesion, they also render the education of their own children anaemic and incomplete" (Section 1.36, 1.37). It proposed the 'neighbourhood school' to "compel the rich, privileged and powerful classes to take an interest in the system of public education and thereby bring about its early improvement" (Section 10.19).

This proposal was subsequently upheld by the National Policy on Education (NPE) 1986, which recommended that "up to a given level, all students, irrespective of caste, creed, location or sex, have access to education of comparable quality" (Section 3.2). The commitment to provide education that promotes equality through 'removal of disparities' was again expressed by the Review of the NPE in the Report of the Ramamurthy Committee (1992): "To promote equality, it will be necessary to provide for equal opportunity to all not only in access, but also in the conditions for success. Besides, awareness of the inherent equality of all will be created through the core curriculum. The purpose is to remove prejudices and complexes transmitted through the social environment and the accident of birth (section 3.6)". It recommended that government schools be transformed through quality improvement into genuine neighbourhood schools and that *private schools should also be made freely accessible.* "The new Policy will lay special emphasis on the removal of disparities and on equalizing educational opportunity by attending to the specific needs of those who have been denied equality so far (section 4.1)". Moreover, despite reservations about the iniquitous programme of a few well-endowed Navodaya Vidyalayas set up by the government, the policy could not change the course of things to come.

As it stands today, the system of public education has been rendered more unequal and differentiated than ever before, with increasing numbers of poor-quality and low-cost centres and 'alternative schools' being established for the poor. Moreover, the vocational stream remains the least sought after, being perceived as one meant for the 'less able', while poor families despair that schools alienate their children from their own vocations and livelihoods. This has happened despite the Ramamurthy Committee (1992) recommendations to link work with school through a common curricular stream having both vocational and non-vocational components, and different options with varying proportions of the two components. It had stated that *vocationalization of school education must be seen in the context of equity and social justice, contrary to the present system where the vocational stream is clearly viewed as the one meant for the less able and the less fortunate* (Section 2.2.6).

7.2 Contested Conceptions of Uniformity and Flexibility:

The challenge of translating the vision of equality into a curricular framework has remained unanswered, and as reflected in the series of Curriculum Framework documents (NCERT 1975, 1988, 2000) that followed, these wishful statements were not always matched with consonant conceptions of what formed a democratic and 'equalizing' curriculum. The first doubts and tensions appeared in the 1975 document on the Curriculum for the Ten-year School, where it was stated that "For a vast country like ours with its diversity of languages, social customs, manners, mores and uneven economic development, the needs and demands of individuals and society will have differential pulls on the school curriculum, varying from one region to the other. For the sake of uniformity of standards and of national identity, therefore it is necessary to develop a common curriculum within a broad framework of acceptable principles and values" (Section 2.1).

This central concern for what was then ambiguously called 'uniformity of standards and national identity' served as a justification for the centralizing tendency in curriculum construction. While the 1975 Curricular Framework confessed that the task of effecting 'internal transformation' of education to address the life, needs, and aspirations of the nation

was becoming increasingly difficult under the mounting pressure of growing numbers of children, and owing to 'rigid postures and orthodox attitudes', it could not radically transcend these limitations. Some broad statements of objectives were made, which provided no indication of how a curriculum was to be designed to address the vision of education for children from diverse cultural and social backgrounds, while the document moved directly to the teaching and content of subject areas.

That children learn through active engagement with their experiences, and that their learning and development is shaped by their cultural capital, including how their societies have looked at the social and physical world around them, was never acknowledged. Also, the concern articulated by policy documents that the existing format of schooling, including the selection of the syllabus, the teaching approaches, and the examinations, was alienating most children and consistently reinforcing inequality was never addressed. The 1975 document continued to speak of the diverse requirements of children only in terms of "the special needs of the talented, the backward, and those coming from non-formal channels". In fact, its section on 'The Core Curriculum and Beyond' delineates how schools would need to go beyond the core curriculum to provide 'additional inputs' for those who may offer to study 'advanced units'; similarly, "students coming from the less fortunate schools or from non-formal education may also need remedial units or bridging units which schools would have to provide" (section 2.15).

7.3 Limited Notions of the 'Curriculum' and 'Beyond the Core Curriculum':

The basic problem in conceptualizing 'flexibility' or 'diversity' was closely tied to the system's inherent limitation and inability to define the role of the 'curriculum' in the first place. What was understood to be the 'curriculum'? It seemed to inevitably imply a fixed core content, which was variously called the 'syllabus' and also the 'standards', and was in the form of a list of topics derived from the subjects to be taught, so that going 'beyond the core' meant only providing either 'enrichment for the talented' or 'remedial inputs for the backward'.

This limited view of 'curriculum' was again manifested in the 1988 document 'National Curriculum for Elementary and Secondary Education: A Framework', which tried to define the 'core' through what were called the 'Minimum Levels of Learning (MLL)' (Section 2.2). There were several problems with this formulation and we shall not dwell on these here; it may suffice here to point out that the 'levels' were attempted to be defined in behavioural terms, and were dictated by the belief that differences lie in terms of hierarchical 'levels' rather than in equally valid but different ways of learning. We find in Section 2.2 the statement that:

A high degree of flexibility and local initiatives are envisaged in designing and introducing remedial and enrichment programmes and materials not only by the State educational authorities but also by the individual schools and teachers to cater to the needs of slow and fast learners studying in the same class/grade in a school. However, the scope for flexibility in methodology and approach to transaction of curriculum is not expected to be used for introducing differential courses or similar measures which would accentuate disparities in standards of education in different parts of the country.

This reluctance of the system to allow for true plurality and flexibility in the curriculum, as well as the restricted meaning of the term 'curriculum' itself, was most clearly evident when the National Advisory Committee presented its report 'Learning without Burden' (GOI, 1993). Some of the recommendations of the Committee were as follows:

The process of curriculum framing and preparation of textbooks be decentralized so as to increase teachers' involvement in these tasks. Decentralisation should mean greater autonomy, within state-level apparatus, to district level boards or other relevant authority, and to heads of schools and classroom teachers to develop curricular materials on their own, best suited to needs of local environment. All the schools (must) be encouraged to innovate in all aspects of curriculum, including choice of textbooks and other materials (Recommendation No. 2a). Voluntary organizations with a specific commitment to pedagogical innovations within the formal or non-formal system (must) be provided greater freedom and support in development of curriculum, textbooks and teacher training (Recommendation No. 2b).

The schools affiliated to CBSE in the states other than Delhi enjoy the prestige of being elite schools. The CBSE curriculum becomes a trend-setter for the State Boards leading to heavier curriculum for majority of children, Therefore the Committee recommends that jurisdiction of CBSE be restricted to Kendriya Vidyalayas and Navodaya Vidyalayas and all other schools be affiliated to the respective State Boards (Recommendation No. 4).

The Ministry subsequently set up its own Group, chaired by Y.N. Chaturvedi and constituted mainly of bureaucrats, to give views on the 'feasibility of implementing the recommendations' of the Advisory Committee. This Group countered most of the radical recommendations of the Committee, giving comments that reflected both its failure to appreciate the import of the Report and its own orthodoxy in educational matters. In fact, wherever the Committee speaks of the 'curriculum', the Group responds using the word 'syllabus', showing that it considers these terms to be identical. It also completely misses the point about the need for Decentralisation in curriculum development, through local participation and ownership, and in which evaluation and certification constitute an important and often the most crucial component. It concedes at best to different curricula for 'different socio-cultural geographical zones' but that too developed centrally by the national/state agencies.

For instance, the Group's responses to the Recommendations 2 and 4 quoted above state that: The Group feels that while the size of committees at national or state level cannot be increased beyond a limit, a meaningful way of improving teachers' participation would be for either the NCERT/CBSE Sate Boards/SCERTs to prepare the draft syllabus and finalize it after subjecting it to regional or district level consideration by a large body of teachers or, in the alternative, to get multiple syllabi developed at regiona and district levels on the basis of which the final syllabi could be prepared at the state/national level.

The Group however, does not recommend decentralization in the preparation of syllabi or textbooks at the district or school level because it will be difficult to ensure *adequate projection of national identity and of composite culture of India. Also in such a situation, the adherence to even minimum standards in all parts of the country may become difficult.*

The Group however, shares the concern of the Yashpal Committee that many textbooks presently tend to project predominantly the urban middle class life style. Therefore, the Group recommends that… in states which have distinct socio-cultural geographical zones, different and parallel sets of textbooks with the same learning objectives should be prepared and used… The textbook preparation agencies should undertake systematic review of all textbooks to ensure that any trivial matter which may have got included in the textbooks is weeded out. As for CBSE it relies heavily on the NCERT for developing syllabi and preparing textbooks….Rightly the NCERT keeps in view the existing standards in the country, the capability of students, and standards in developed countries…If there is unnecessary material in some of the NCERT books, it should be eliminated. However, *there is not adequate material on record to substantiate that the CBSE syllabi or NCERT books per se are overloaded. …If affiliation to the CBSE is good for Kendriya and Navodaya Vidyalayas it cannot be bad for other Schools.*

7.4 The Role of the Textbook and 'National Standards':

The Secondary Education Commission (1952) had pointed out that the then curriculum was "narrow, bookish and theoretical" with an overloaded syllabus and unsuitable textbooks. It had suggested that the curriculum should not be divided into a number of watertight subjects, but that all subjects should be interrelated and should include relevant and significant content so that it could touch the lives of students. It also recommended that a high powered committee be set up in every State for selecting textbooks and for laying down appropriate criteria, emphasizing that "No single textbook should be prescribed for any subject of study, but a reasonable number which satisfy the standards laid down, should be recommended, leaving the choice to the schools concerned". The subsequent Education Commission (1964–66) continued to highlight the poor quality of school education and commented on the low quality of textbooks, owing to the lack of research related to their preparation and production, and the lack of interest of top ranking scholars in this area. It called for the definition of 'national standards' and recommended centralized textbook production to conform to those, starting at the national level and also supporting establishment of bodies at the State level. In hindsight, we can see that the problematic role of the textbook continuing from the colonial education system, which has assumed a sacrosanct position in the school and the classroom, marginalizing the role of the curriculum and the syllabus, was further strengthened from the then expectation that the 'nationally produced' textbook would 'far more precisely' indicate the national standards. The definition of these (national) standards as well as the organisation of a programme for their practical implementation will be greatly facilitated by the production of textbooks at the national level. *Such books can indicate the expected standard of attainment far more precisely than any curricula or syllabi*; and their practical use in schools is the surest method to raise standards and make the teaching in schools in different parts of the country fairly comparable. In a subject like science and mathematics there is not much scope for local variations and the adoption of common textbooks in all parts of the country is not only feasible but also desirable from several points of view… History is another difficult subject to teach, especially from the point of view of social and national integration, and authoritative well written books on the subject can be of immense help to all teachers. *At present there is hardly any common book which all the students in India read and is one of the reasons why our educational system contributes so little to national integration* (Section 9.19).

There are problems in the notion of 'common' textbooks across the country, in either science or history, especially since now, forty years later, there is a more nuanced understanding of child development an pedagogy that shows that learning happens when the 'content' of curricula is contextualized in the child's experiences and cultural knowledge, whether of plants, animals, people, or processes. However, at that time there commendations seem to be guided more by the need to attract the best 'national' talent to contribute to the improvement of school education. Indeed, the

Education Commission also saw this process of producing 'national books' as one that would help build capacities and "stimulate other centres into activity and especially promote similar enterprise at the State levels" (Section 9.20). "Even in areas where national books are available, independent attempts by States will stimulate each other and the Centre itself". For this it had recommended "a separate agency, preferably functioning on an autonomous and commercial basis, in close liaison with the Education Department" (Section 9.21).

Moreover, its own dilemma in proposing 'nationalisation' of textbooks is apparent when it attempts to somehow mitigate the problem of uniformity and homogenization and calls for a multiplicity of textbooks:

No useful purpose it served by having only one textbook in a subject for a given class – this is almost invariably the position under the existing programmes of nationalization. It should be an important objective of policy to have at least three or four books in each subject for each class and leave it open to the teachers to choose the book best suited to the school. This is necessary even if there were to be a common syllabus for all schools. We have recommended, however, that there should be more than one approved syllabus and that each school should be permitted to adopt the syllabus best suited to its own condition (Section 9.21).

7.5 Supporting Decentralized Curriculum Development:

The past ambiguity in decentralizing and diversifying curricula and textbooks reflects a perceived need for appropriate mechanisms to ensure quality, conformance with common 'standards of attainment' as well as to a broad national democratic vision. It becomes necessary to see how these concerns can be viewed and addressed in the present context. At the present juncture in time, on the one hand, several States have already initiated the process of developing their own textbooks, and conduct their own Board Examinations. In fact, the notions of curriculum and syllabus effectively lie collapsed in the textbook, which is taken to be the only indicator of what needs to be 'covered' for the examination. What is actually learnt by children and how the curriculum helps shape their development has thus got obscured. This subversive role of the textbook has not only distorted its academic purpose but also allowed it to be used as a means of political and ideological propaganda by the State. In addition, private schools are increasingly opting for alternative textbooks by private publishers in classes that are relatively free from pressures of the Board Examination, and the market is increasingly exercising its influence, looking for ways to circumvent the control of the Board. The concerns for ensuring quality, broad 'standards of performance' and avoiding subversion of democratic norms get even more amplified in this scenario.

The present programme for universalization of elementary education, namely the Sarva Shiksha Abhiyan, also calls for Decentralisation of curriculum development to be done at the district level, highlighting the need to build capacities of District Institute of Education and Training (DIETs) and other related organisations. We endorse this need and recommend that the NCERT and other national bodies must consciously promote building of capacities in decentralized curriculum development and textbook production, in the States and at the district level. The articulation of broad standards of performance could be undertaken as part of the present National Curricular Review.

It is also suggested that appropriate regulatory mechanisms be created by establishing an independent body at the State level with a federal national structure to approve different curricular packages, which include textbooks, teacher training and recruitment processes, assessment and examinations, etc. The national structure may be answerable to the Central Advisory Board of Education (CABE), and should produce professionally developed criteria and guidelines, conduct documentation and review, and ensure appropriate consultation and sharing among the State bodies. It must also ensure that the process of regulation is kept transparent and all reports are made public. The State body must be constituted of persons with professional experience in education and also from NGOs and State Commissions on women, SC/ST, etc.

We envisage that this State body will review and approve all curricular packages developed and used in different districts, and share its reports and materials at the National level. It must be ensured that this State body and the national structure must itself not have any conflict of interest and must not itself be involved in the development of curricular packages, including production of textbooks, conduct of examinations, etc.

In the light of this process, all textbooks, even those produced by private publishers would be reviewed and approved by the State bodies. Moreover, our group strongly recommends that the regulatory mechanism must be professionally worked out to carefully avoid the attendant distortions and problems that may arise out of bureaucratic and political pressures, vested interests or even corrupt practices, within bodies established to approve the curricular packages1.

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Chapter 8

Recommendations

Until 1976, Indian constitution allowed state governments to take decisions on matters related to education and centre could only provide suggestions on policy issues. At the same time, the National Education Policy (1968) entrusted NCERT to develop Curriculum Framework and accordingly National Curriculum Framework-1975 was developed. In the year 1976, constitution amended to include education in concurrent list and as a result, for the first time, the country could evolve a National Policy on Education in 1986. NCERT was entrusted to develop curriculum framework. It was recommended that the curriculum should have a core component to be followed across the country. Thereafter, National Curriculum Framework for School Education (1988), Learning without Burden (1993) recommended various suggestions to improve school education. NCERT developed new National Curriculum Framework in the year 2005. The following aspects related to science education have been discussed in NCF-2005:

8.1 Criteria of Ideal Science Curriculum:

What is the 'nature of science'? As we know, the physical world is explored and understood with the help of science. The facts, principles and theories of science are used to explain the physical world. It is a fact that, science is an ever-expanding knowledge sphere; many of the established universal laws are subject to change based on new observations and experiments. Even then, it is concluded that, science in general is used to explain the environmental phenomenon and physical world around us. Science is also equated to technology; technology employs the various principles of science. The relation between 'nature of science' and technology help us in formulating the 'vision of science education'. According to NCF-2005, good science education is one that is true to learner, true to life and true to science. Thus science education is intended to meet following criteria (validity) and science curriculum should adhere to it.

- Cognitive validity requires that the content, process, language and pedagogical practices of the curriculum are age appropriate, and within the cognitive reach of the learner (NCF-2005). For example, the basic concepts of electromagnetic induction have to be taught before introducing the electric generator.
- Content validity requires that the curriculum must convey significant and correct scientific and correct information. Simplification of content, which is necessary for adapting the curriculum to the cognitive level of the learner, must not be so trivialized as to convey something basically flawed and/or meaningless (NCF-2005). What does it mean? The content transacted in the curriculum should be significant and scientifically accurate. We teach periodic table to learners just as an arrangement of elements. But it is meaningless until you expose learners to the scientific basis of ordering elements based on the atomic number (number of protons), electron configuration, chemical properties, etc. Many more logical factors contribute to the arrangement of elements in the periodic table and that must be convinced.

- Process validity requires that the curriculum should engage learners in acquiring the methods and processes that lead to the generation and validation of scientific knowledge and nurture the natural curiosity and creativity of the learner in science. Process validity is an important criterion since it helps the learner in 'leaning to learn' science (NCF-2005). The curriculum should engage learners in activities and experiments focusing the theory "learning to learn" and thereby developing the cognitive skills, curiosity, creativity and scientific knowledge. For example, chemical reaction is a topic to be taught by demonstrating. At the same time learners need opportunities to experience it. Thus the processes in science must be demonstrated and experimented.
- Historical validity requires that the science curriculum be informed by a historical perspective, enabling the learner to appreciate how the concepts of science evolve over time. It also helps the learner to view science as a social enterprise and to understand how social factors influence the development of science (NCF-2005). The knowledge that, science and scientific knowledge has historical evidence regarding its development and curriculum should emphasize it. The efforts of scientists must be appreciated by learners and they themselves have to emerge as scientists. For example, while you teach different branches of science, you may explain the history behind it.
- Environmental validity requires that science be placed in the wider context of the learner's environment, local and global, enabling him/her to appreciate, the issues at the interface of science, technology and society, and equipping him/her with the requisite knowledge and skills to enter the world of work (NCF-2005). Science, technology and society are closely interrelated. The growth and progress of science and technology should benefit each other. The curricular learning experiences should relate to learners' environment. For example, learners study the concept of 'cell' but they are less concerned about faulty batteries. People throw away obsolete batteries which has harmful effects to both environment and human life as it contains harmful chemicals. Thus, while teaching science the interrelationship among various components must be taught.
- Ethical validity requires that the curriculum promote the values of honesty, objectivity, cooperation, and freedom from fear and prejudice, and inculcate in the learner a concern for life and preservation of the environment (NCF2005). For example while teaching the concept 'nuclear bomb'; teachers must be able to develop qualities like empathy, sympathy, etc. in learners.

8.2 Science Curriculum at Different Stages:

Consistent with the general aims, the objectives, content, pedagogy and assessment for different stages of the curriculum are summarized below.

At the primary stage the child should be engaged in joyfully exploring the world around and harmonizing with it. The objectives at this stage are to nurture the curiosity of the child about the world (natural environment, artifacts and people), to engage in exploratory and hands on activities to acquire the basic cognitive skills (psychomotor, observation, classification, inference, etc.); to emphasize on design and fabrication, estimation and measurement as a prelude to development of technological and quantitative skills of later stages; and to develop basic language skills: speaking, reading and writing not only for science but also through science. Science and social science should be integrated as

'*Environmental Studies*' as at present, with health as an important component. Throughout the primary stage, there should be no formal periodic tests, no awarding of grades or marks, and no detention.

At the upper primary stage the child should be engaged in learning simple principles of science through familiar experiences, in working with hands to design simple technological units and modules and in continuing to learn more on the environment through activities and surveys. Scientific concepts are to be arrived at mainly from activities and experiments. Science content at this stage is not to be regarded as a diluted version of secondary stage science. Group activity, discussions with peers and teachers, surveys, organization of data and their display through exhibitions, etc. in schools and neighbourhood are t be an important component of pedagogy. There should be continuous as well as periodic assessment (unit tests, term end tests). The system of 'direct' grades should be adopted. There should be no detention. Every child who attends eight years of school should be eligible to enter Class IX.

At the secondary stage the students should be engaged in learning science as a composite discipline, in working with hands and tools to design more advanced technological modules than at the upper primary stage, and in activities and analysis on issues surrounding environment and health. Systematic experimentation as a tool to discover/verify theoretical principles, and working on locally significant projects involving science and technology are to be important parts of the curriculum at this stage.

At the higher secondary stage science should be introduced as separate disciplines with emphasis on experiments/technology and problem solving. The current two streams, academic and vocational, being pursued as per NPE 1986 may require a fresh look in the present scenario. The students may be given an option to choose the subjects of their interest freely, though it may not be feasible to offer all the different subjects in every school. The curriculum load should be rationalized to avoid the steep gradient between secondary and higher secondary syllabus. At this stage, core topics of a discipline, taking into account recent advances, should be carefully identified and treated with appropriate rigour and depth. The tendency to superficially cover a large number of topics of the discipline should be avoided.

8.3 Stimulating Creativity and Inventiveness in Science:

One of the major objectives of teaching science is to develop among the learners the spirit of inquiry and creativity. Hence, NCF-2005 recommends the following;

- Engage learners in learning activities, science fairs, experiments and project work, learners' science congress, co-curricular activities etc. to promote curiosity, inquisitiveness and creativity.
- Organize science and technology fairs at local, district, state and national level with coordinated effort of national and state level agencies, nongovernmental organisations and teacher associations.
- Develop experimental and technological modules along with text books and develop internal assessment mechanisms for evaluation.

Introduce a paradigm shift in science curriculum at all stages. Emphasise exploration, inventiveness and creativity through activities, experiments, technological modules, contextualized as far as possible. Encourage implementation of cocurricular and extra curricula components through a massive expansion of existing non-formal channels such as project exhibitions, children's science congress, etc.

- In continuation of the measure above, launch a large scale SCIENCE & TECHNOLOGY FAIR at the national level for school students, with feeder events at local/district/state levels, with the objective of searching and nurturing inventive/creative talent among students. Upgrade the current activity in this regard by many orders of magnitude, through co-ordination of state and central agencies, NGOs, teacher associations, etc., financial support and mobilization of experts in the country.
- Incorporate experiments/technological modules and other parts of co-curricular components into the textbook as far as feasible, which should be subject to internal assessment (even for Class X and Class XII examinations). Other co-curricular components should be encouraged through non-formal channels as suggested before.

8.4 Textbooks:

Textbooks are the core medium of transacting curriculum and thus the following points must be taken into consideration;

- Use the textbook as one of the primary instruments for universalization of good science education in the country, since for a great majority of school going children, especially from rural areas and poor homes, as also for their teachers, it is the only accessible and affordable resource for education.
- Encourage diversity of curricular choices and alternative approaches to textbook writing in the country, within the broad guidelines of the national curriculum framework.
- Improve textbook writing procedures by the national and state agencies. Ensure greater participation of teachers in the actual writing of the books and their intensive field testing.
- Promote extensive use of textbooks among learners and teachers. This also calls for universalization of science education.
- Incorporate diverse learning activities in the textbooks. The field experiences of teachers must be considered while writing textbooks. Also ensure the participation of teachers, state and national agencies during preparation of textbooks.

8.5 Examination System:

Learners are to be assessed at various stages of learning to ensure the attainment of educational objectives. The following assessment reforms are recommended in the NCF-2005;

- Internal assessment must be practiced for experiments, learning activities and technological modules even for secondary and senior secondary board examinations.

- The theoretical examination should include questions to test critical understanding, experimental skills, enquiry procedures and competency to solve problems.
- To reduce stress, learners must have freedom to attend examinations at their own choice and time and the credits could be accumulated.
- The activities/experiments/technological modules within the textbook should be assessed internally even for Class X and Class XII Board Examinations.
- The theoretical science paper for examinations including the Class X and Class XII Board examinations should have carefully designed experiment/technology-based questions, questions testing critical understanding and ability to solve problems.
- Permit students to write examinations in different subjects at different times and accumulate credits. There may be problems of logistics in implementing this idea at present, but it will reduce examination related stress to some extent.
- Reduce multiplicity of entrance examinations after the "10 + 2" stage by coordination of various central and state agencies. Launch a comprehensive *National Testing Service* (at the higher secondary stage, to begin with) as a possible way to reduce this multiplicity. The proposal is feasible only if the different central and state agencies agree to drop their entrance examinations in favour of a common National Testing Service; otherwise the proposal may be counterproductive.

8.6 Teacher Empowerment:

The future teachers are trained and shaped at the teacher education institutions. The quality of learner-teachers depends on the quality of teachers by whom they are trained. In such a scenario, the following are recommended for teacher education institutions;

- The teacher training practices requires a complete overhaul in training programme, pedagogic practices, curriculum and training of science teachers. Future science teachers must be oriented and given training in skills and competencies in science teaching.
- Teachers who have school teaching experience must be appointed as science teacher educators. Recruitment modalities must be modified to appoint qualified teachers.
- Qualified and trained teachers must be attracted and appointed at various levels of schooling. Academic autonomy could be provided to maintain the quality of teaching.
- Implement measures to practice peer interaction among teachers and exchange of teachers within and outside schools may be promoted.
- Discourage the practice of entrusting teachers with extracurricular duties, reward and honour best practicing teachers with incentives and promotional schemes.
- Carry out a complete overhaul of the teacher education system in the country including modernization of syllabus and development of appropriate laboratories for teacher education in science.
- Undertake vigorous recruitment of high quality teacher educators who must have actual experience in school teaching.
- Undertake orientation of inspectors and government educational officials and sensitize them to the need for academic autonomy of teachers, without sacrificing academic accountability.
- Provide qualified and trained teachers at all stages.

- Create systems of peer group interaction among teachers. Promote within school and between schools modes of academic exchanges between teachers.
- Discontinue the practice of giving extraneous non-academic responsibilities to teachers at the cost of their teaching duties.
- Institute schemes of incentives/awards to honour the deserving teachers.

8.7 Equity:

The disparity among poor and rich, caste inequalities, regional indifferences, etc. hinders the economic and cultural development. Each school subject should prepare learners fight against such anomalies. The following are suggested to maintain the equality and removal of discrepancies;

- Use science education as an instrument to build awareness and removal of caste issues, religious problems, gender divide, etc. This removes social – economic divide and bring in social transformation among people.
- Even though curriculum is context focused, it should provide scope to respect individual and diverse life styles.
- Implement suitable measures to sensitize teachers for a gender fair science education, both at pre-service and in-service stages.
- Use of ICT as a medium to promote science education and to reach the weaker and rural sections of the society thereby eliminating social divide of deprivation of education.
- Use science curriculum as an instrument of social change to reduce the socio-economic divide and to help fight prejudice related to gender, caste, religion and region.
- Content of the curriculum should promote respect for diverse lifestyles, even if there is a focus on contextualization.
- Emphasise gender sensitization of teachers both at the pre-service stage and during in-service training to promote gender fair science education.
- Use ICT as a powerful tool for bridging the social divide in education and as an opportunity equalizer.

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