Chapter 1

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"By education I mean an all-round drawing out of the best in child and man, body, mind and spirit" – Mahatma Gandhi.

Education is a lifelong process; it starts from the cradle and ends in grave. Education is a term which is more easily understood than defined. Prof. Dumville (1913), "education in its wider sense includes all the influences which act upon an individual during the passage from the cradle to grave". Education is the cumulative effect of varied experiences received by an individual in the home life, out of home life, in the school, out of the school, here there and everywhere. The word education has been derived from two Latin words "Educare" and "Educere". "Educare" means "to raise", "to nourish", "to bring up," "to foster" and "Educere" means "to enhance", "to develop", "to improve", "to drawing out". Education is thus a process of self-expression. The ability of an individual expresses himself develops through education. The new born child helpless and ignorant at birth gradually grows and develops into a complete personality by acquiring knowledge and skills. Thus education is the process by which the knowledge, character and behavior of an individual are formed and modified.

The role of education is the most important factor in the development of a nation. Any country therefore, needs to accord a high priority to its educational development and ensure its quality to produce the right kind of personnel capable of being the rightful future citizen. Education in developing countries like India assumes a greater importance. According to ancient thinkers in India, '*vidya*' or knowledge or learning or education was

considered the "third eye" of person, which gives an insight into all affairs and teaches how to act. It leads us to our salvation in the mundane sphere it leads us to all round progress and prosperity. A person, who does not possess the light of education, may be really described as blind. The correct insight which men and women get through *'vidya'* naturally increases their intelligence, power and efficiency. Every child is born with certain natural and inherited endowments. These endowments are modified and sublimated for making the individual child a useful member of society. The process of such modification of endowments or change of animal behaviour is known as education.

In ancient times India had the Gurukula system of education in which anyone who wished to pursue knowledge approached to a teacher (Guru) house and followed the rituals of Gurukula. Upon acceptance as a disciple (Sishya) by the guru, the student would then stay at the guru's place and help in all activities at home. This not only resulted in a strong bond between the teacher and the student, but also ensured all round development of the student. Teachings that the Guru offered ranged from Sanskrit as a language to understanding of Holy Scriptures and from Mathematics to Metaphysics. The student could stay with the Guru as long as he/she felt to or until the guru felt that he had taught everything he could teach. Learning thus happened in sync with the nature and life and not just limited to memorizing few things.

The start of modern school system in India can be attributed to the British. Prior to the British rule, there was no such formal system of education in India. It was the minutes submitted by Lord Macaulay and subsequent resolutions passed by the Governor General Lord William Bentinck in 1835 that led to the establishment of schools teaching western literature and science. Gradually western education became more popular as educated

Indians were offered high posts under the Government. The curriculum was confined to "modern" subjects such as science and mathematics, and subjects like metaphysics and philosophy were considered unnecessary.

Attainment of independence saw a huge transformation in the political system in India. This provided the right impetus for social transformation as well, and education was of prime importance to take independent India in the path of development. Efforts were made to initiate overall development of the education system in the country. The first major step in this direction was the appointment of the University Education Commission in 1948 under the Chairmanship of Dr. Sarvapalli Radhakrishnan, to look into the problems faced by higher education in India. The four recommendations of the University Education Commission on the Aims and Objectives of Higher Education were:

- The Universities have to provide leadership in politics, administration, education, industry and commerce.
- The aim of university education should be to produce intellectual adventures.
- One of the main functions of the universities is to bring about spiritual development of the students.
- Education should discover the innate qualities of a person and develop them through training.

The University Education Commission also remarked that our secondary education remained the weakest link in our educational machinery and it needed urgent reforms. Education also needed a fresh look, calling for a new outlook which was appropriately

voiced by Maulana Abul Kalam Azad, the then Education Minister in his presidential address to the Central Advisory Board of Education in 1948.

Article 45 in The Constitution of India (1949) states "*provisions for free and compulsory education for children - The state shall endeavour 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*".

The following section discusses the development of secondary education in India.

1.1 Secondary Education in India

Secondary education is a vital link between primary and higher education system and it holds the responsibility of nurturing the basic competencies gained during primary education and preparing oneself for higher education. The discussion on secondary education in India is divided into two parts: Pre-Independence and Post-Independence.

1.1.1 Pre-Independence

Prior to the British rule, there was no such formal system of secondary education in India. It was the minutes submitted by Lord Macaulay and subsequent resolutions passed by the Governor General Lord William Bentinck in 1835 that led to the establishment of schools teaching western literature and science. Gradually western education became more popular as educated Indians were offered high posts under the Government.

In the history of Indian Education Wood's Despatch holds a unique position. It has contributed much in organizing the present education system in India. As per the recommendation of Wood's Despatch in 1854, Department of Education was created in each province. This formed the basis for creating a system of education, from the primary

school to the University. Since then serious efforts were made by the Government to promote education at all levels. In 1882 Hunter Commission made important recommendations on secondary education. The commission recommended that Government should gradually withdraw from secondary education leaving the responsibility to private enterprise. In each district there should be one Govt. high school as a model to the private schools. The Government should sanction grants – in – aid to private bodies for expansion of secondary education.

Other important events that contributed towards shaping the educational system in India are: Indian Universities Commission (1902), Government Resolution on Educational Policy (1913), Calcutta University Commission (1917) also called Sadler Commission, Hartog Committee (1929), Sapru Committee (1934) , Abbot-Wood Report (1936-37), Zakir Hussain Committee (1937), Wardha Education Committee of the Central Advisory Board of Education (1939) also called B. G. Kher Committee, Central Advisory Board of Education Report (1944) or Post-War Educational Development Report popularly called the Sargent Report (1944).

1.1.2 Post Independence

The Central Advisory Board of Education at its 14th meeting held in January 1948 recommended the appointment of a commission to examine the prevailing system of Secondary Education in the country and to suggest measures for its reorganization and improvement. There were other considerations also before the Government of India for setting up a commission for Secondary Education.

Realizing the importance of secondary education in an educational system the Secondary Education Commission or Mudaliar Commission (1952-53) formulated the following objectives of secondary education:

a. Development of democratic citizenship:

Since India has decided to make itself a democratic republic, the citizens have to be trained to uphold and practice the values of the democratic social order. This can be possible only when the qualities of discipline, tolerance, patriotism, co-operation, and equal opportunities for thought, speech and writing, the essence of the world citizenship are inculcated and developed in the students. Secondary education, according to the Mudaliar Commission, should develop all these qualities in the students. Citizens with these qualities can grow into ideal - citizens capable of making Indian democracy a success.

b. Improvement of vocational capability and efficiency:

One of the urgent needs of independent India was to increase the productive efficiency of its people and to increase the national income. For this, education must aim at increasing the productivity or vocational efficiency of the young students. To achieve this goal, the Secondary Education Commission recommended for fostering the dignity of manual labour and for the promotion of technical skills for the advancement of industry and technology through secondary education. Therefore, it was recommended that secondary education must to be freed from being purely a theoretical education system and emphasis is to be placed on agricultural, technical, commercial and other practical courses.

c. Education for leadership:

Secondary education is a terminal point for majority of the students. Therefore, at the end of the school education, each pupil must be able to enter into various professions independently. "A special function of the secondary school, in the context, is to train persons who will be able to assume the responsibility of leadership - in social, political, industrial or cultural fields - in their own small groups of community or locality."

d. Development of personality:

The secondary education must aim at the development of the personality of the students. It should be so organized that the creative energy in the students should find proper expression. They should also be trained to appreciate their cultural heritage and acquire constructive and valuable interest. They should also be trained to preserve and conserve their cultural heritage. An all-round development of the personality of the student is an essential aim of secondary education.

And emphasizing upon the importance of Principals, it states "on him the proper working of school ultimately depends. The reputation of school and the position it holds in the society depends in a large measure on the influence that he exercises over his colleagues, his pupil and the general public. He is always responsible for carrying out the policies and programmes of the Dept. of Education and he acts as a liaison between it and the management of the general local community".

The Education Commission (1964-66) was appointed on July 14th, 1964 by the Government of India under the Chairmanship of Dr. D. S. Kothari. It emphasized that

education has a very extensive role to play in changing the men and society. It has to be entirely reformed and related to the life, needs and aspirations of the people so that it may serve as a powerful tool of social, economic and cultural transformation. In order to relate education, the commission recommended the following objectives-

1. Increase in Productivity.
2. Promoting Social and National Integration.
3. Education and Modernization.
4. Developing Social, Moral and Spiritual Values.

1. Increase in Productivity:

The Commission suggested that education must be related to productivity to increase national income. In order to link education and productivity the Indian Education Commission made the following recommendations:

a. Science is the basic component of education and culture; so it should be made an integral part of school education.
b. To inculcate the value of manual work the commission recommended the introduction of work experiences in school education.
c. To meet the increasing needs of technical personnel in Industry; agriculture and trade, the commission recommended the introduction of vocational subjects in school curriculum.

2. Promoting Social and National Integration:

National and social integration is the precondition for the progress and development of a country. According to the commission, Social and National Integration is an important

objective of a national system of education. The commission made the following recommendations for strengthening social and national integration through education:

a. To make education a powerful instrument of national development, common school system of public education should be adopted.

b. Bridge the gulf between educated and the uneducated, intellectuals and masses, social and national services should be made an integral part of school education.

c. Language is a firm adhesive for social and national integration, hence suitable provisions should be made for teaching mother tongue, Hindi and other Modern Indian Languages in schools.

3. Education and Modernization:

The commission was of the belief that an education system which does not renovate itself continuously becomes out-dated and puts hindrance to progress. To keep pace with modernization the commission opined that "greater emphasis must be placed on vocational subjects, science education and research."

4. Social, Moral and Spiritual values:

The national system of education should emphasis on cultivation of social, moral and spiritual values among students. And for this, the commission recommended that:

a. Central and State Governments should adopt measures to introduce education in moral, social and spiritual values in all institutions under its direct control.

b. In order to develop social, moral and spiritual values, some periods should be provided in the time table.

c. University departments should be specially concerned with the ways in which these values can be taught wisely and effectively and should undertake preparation of the special literature for use by students and teacher.

The Indian Education Commission (1964) also recommended a new structural pattern (10+2+3) of education, according to which:

   a. One to Three years of pre-school education.

   b. A primary stage of 7-8 years divided into a lower primary stage of 4 or 5 years and higher primary stage of 3 or 2 years.

   c. A lower secondary stage of 3 or 2 years of general education or 1 to 3 years of vocational education,

   d. A higher secondary stage of 2 years of general education or 1 to 3 years of vocational education, 50% of the total would be under vocational education.

   e. A higher education stage of 3 years or more for the first degree course followed by courses of varying duration for the second or research degrees.

Further, in context of school leadership, the commission mentions that "special training course be organized for Head masters. They should include short induction course for those who are newly promoted as head masters as well as periodical refresher courses for others".

National Policy of Education (1986) in context of Secondary 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. 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.

National Policy on Education (1986) in context of leadership states "A very important role must be assigned to the Head of an Educational Institution; Heads will be specially selected and trained".

According to the perspective paper on Education prepared by the Ramamurthy Committee (1990) to review NPE (1986) "The Head of the educational institution shall have significant role to play in the effective management of the schools. The role of the institutional head is a crucial factor in management. It is in this view of the critical link between institutional managers and institutional efficiency that training of Principals has been emphasized".

Secondary Education including the Senior Secondary stage has been a crucial segment of Indian Educational Hierarchy. Secondary Education is the "lintel of the entire educational edifice of a country. It has remained largely unrecognized and under-provided among the various sectors and levels of education. This sector has grown much faster than all other sectors of education and is poised for a bigger leap with success in universal primary education. Greater the success in Universalization of Elementary Education, greater will be the pressure on Secondary Education (Mukhopadhyay, 1999).

National Knowledge Commission (2006-09) in its recommendation on school education highlighted the need for training talented individuals for the task for school Principalship by assigning such training responsibilities to existing institutions like SCERT or SIE and effectively leveraging the expertise available in Navodaya Vidyalayas, Kendriya Vidyalayas, Government Schools as well as Private Schools.

Growth witnessed in Indian elementary education enrollment and improvement in retention and transition rates over past ten years, are increasing pressure on the secondary level to absorb new entrants. Given the quantum of investments made by both the center and state in 'Sarva Siksha Abhiyan" which will continue in the years to come, will indeed push additional demand for secondary and higher education. Sustainable and impressive growth that India has shown for the past few years has also contributed to a surge in demand for secondary education.

Rashtriya Madhyamik Siksha Abhijan (RMSA) being launched in March, 2009 with the objective to enhance access to secondary education and to improve its quality. It is envisaged to achieve an enrolment rate of 75% from 52.26% in 2005-06 at secondary stage within 5 years of implementation of the scheme by providing a secondary school within a reasonable distance of any habitation. The other objectives include improving quality of education imparted at secondary level through making all secondary schools conform to prescribed norms, removing gender, socio-economic and disability barriers, providing universal access to secondary level education by 2017, i.e., by the end of 12th Five Year Plan and achieving universal retention by 2020.

Given below are certain important features of RMSA:

1. Important physical facilities provided under the RMSA are:

   a. Additional Classrooms

   b. Laboratories

   c. Libraries

   d. Arts and Crafts Room

   e. Toilet Blocks

   f. Drinking Water Provision

   g. Residential Hostels for Teachers in remote areas.

2. Important Quality Interventions provided under RMSA are:

   a. Appointment of additional teachers to reduce the pupil teacher ratio to 30:1

   b. Focus on Science, Math and English education.

   c. In-Service training to teachers

   d. Science Laboratories

   e. ICT enabled education

   f. Curriculum reforms and

   g. Teaching learning reforms.

3. Important Equity Interventions provided by RMSA are:

   a. Special focus in micro planning

   b. Preference to Ashram Schools for upgradation

   c. Preference to areas with concentration of SC/ST/Minority for opening schools

   d. Special enrollment drive for weaker sections

   e. More female teachers in schools

   f. Separate toilet blocks for girls.

The scheme is being implemented by the State Government Societies established for implementation of the scheme. The central share is released to the implementing agency directly. The applicable State share is also released to the implementing agency by the respective State Governments

1.2 Scenario of Educational Development in Assam

In Assam secondary education was started in the year 1835. As per the recommendations of the General Committee of Public Instruction, the Commissioner of Assam, Captain Jenkins started an English school at Gauhati in 1835. This school was known as "Guwahati Seminari" which is the present Cotton Collegiate School in Panbazar. In 1841 another high school was established in Sibsagar which is presently known as "Sibsagar Govt. Higher Secondary school". As per the recommendation of Wood's Despatch in 1854, Department of Education was created in each province. However, in Assam such a Department of Education was created in 1874 when Assam was separated from Bengal and Director of Public Instruction was appointed. Development of secondary education in the state was very slow and by 1899-1900 Assam had only 20 high schools.

Further setback to the development of education in Assam was witnessed when Lord Curzon in 1905 attached administration of Assam with East Bengal. In between 1912-1947, Assam witnessed steady growth in education and the number of Middle English and Middle Vernacular schools rose to 742 and high schools to 191 till 1947. This may be attributed the Govt. of India Act 1919 which introduced the system of Diarchy in Administrative field giving the State Governments freedom in matters related to education.

Secondary education in Assam made remarkable progress after independence. The Government of Assam adopted several measures for the development of secondary education. Introduction of changes in administration, revision of curriculum, change in the evaluation system, establishment of different types of schools are some of the important measures adopted in the field of secondary education. The recommendations of the Mudaliar Commission (1952 – 53), the Kothari Commission (1964 – 66) appointed by the Govt. of India, the National Education Policy, 1986, CABE (2008) and the launch of RMSA-Assam in 2010 made tremendous contributions to the development of secondary education in Assam. A summary of major developments are provided hereafter.

Post independence, and with simultaneous agitation by the people of Assam, Gauhati University was established in 26th January 1948, prior to which the matriculation examination was conducted by Calcutta University. Till 1962 Gauhati University looked after the secondary education and conducted the matriculation examinations.

According to the recommendations of Secondary Education Commission (1952-53) eleven year school course was introduced in Assam, with upgradation of 10 years of high school pattern to 11 years higher secondary school pattern and the necessary thrust towards developing the secondary education scenario in Assam was provided by the establishment of the State Board of Secondary Education as per the provisions laid under The Assam Secondary Education Act, 1961 (Assam Act No XXV of 1961) to provide for the establishment of a Board of Secondary Education in Assam to regulate, supervise and develop the system of secondary education in the state of Assam. The major provisions being:

1. It extends to the whole of Assam.

2. The University or any board will have no controlling authority over secondary schools recognized by the government.

3. A Board of Secondary Education will be constituted for administration, control and development of Secondary Education. The Director of Public Instruction will be the Chairman of the Board.

4. Duties and responsibilities of the Board will be —

   a. Preparation of curriculum.

   b. Conduct examination.

   c. Awarding Certificates.

   d. Selection of Textbooks.

   e. Preparation of rules and regulations for recognition of school.

   f. Determination of qualification of teachers etc.

These measures helped in the growth and development of secondary education in Assam. Total number of Higher Secondary and Multipurpose schools in Assam was 70 and total number of High schools in Assam was 1200 during 1969 – 70. The Act was amended in 1972 when it was laid down that the Board is to prepare and publish textbooks and supplementary books through Assam Text Book Production and Publication Corporation. Second amendment of the Act was made in 1973, which provided for the appointment of a full – time Chairman. In 1974 a full time Chairman has been appointed in the Secondary Education Board, Assam.

As per the recommendation of the Kothari Commission, the Board of Secondary Education, Assam introduced the new 10+2+3 pattern and adopted the new curriculum and syllabus from the academic session 1973 – 74. The Board of Secondary Education,

Assam continued to serve for both the 10 years of secondary school and 12 years of higher secondary courses. The affiliated colleges under Gauhati University and Dibrugarh University started 2 years of higher secondary course as it was not possible to upgrade all secondary schools to higher secondary pattern. "The Assam Higher Secondary Education Council" was constituted in 1984. Now the Assam Higher Secondary Education Council is entrusted with the responsibility to control Higher Secondary education. Major functions of the Council are –

1. To sanction permission for establishment, recognition of the school.
2. Preparation of curriculum.
3. Selection of Textbooks.
4. Conduct of Examinations.
5. Award of Certificates.

Subjects of Arts, Science and Commerce were introduced at the higher secondary level and also vocational streams were opened. However, vocationalization didn't pick up the momentum as expected.

The Govt. of Assam Provincialised all the High Schools and Higher Secondary schools which enjoyed deficit grant from the Govt. from 1st October 1977. Besides the Provincialised school there are schools managed by private bodies receiving no grants from the Government. There are Central School under Kendriya Vidyalaya Sangathan, Govt. of India conducting examination at two levels – class X and class XII, in consultation with the Central Board of Secondary Education. Navodaya Vidyalayas too have come up in the state and there is a Sainik School at Goalpara district of Assam.

There has been an impressive growth of the elementary education system in Assam in the last few decades. This is reflected in the significant increase in the number of Primary schools and Middle Schools, the number of teachers at Primary and Middle levels and enrolments at both the levels of elementary education. Hence, the pressure on secondary education has immensely developed and the need for more institutions at this level is felt.

Realizing the role that education plays in the social and economic development, the Government of Assam, in the document "Education Vision, Assam 2025" has accepted in principle, to adopt a perspective plan for 25 years commencing from 2001 A.D. The Government, herein, has strongly recommended a clean, capable, and transparent administration which could facilitate and control the economic development. The stipulations as applicable to secondary and senior secondary education are – Quality improvement of teachers, up gradation of text books with emphasis on Math and Science, creation of educational facilities for floating populations in urban and riverine (char) areas, Universalization of higher secondary education by 2020, compulsory computer education from class X to class XII in all Provincialised schools by 2005 and from class VI to class X by 2010 and creation of facilities for emerging fields in education.

Right to Education the bill for providing free and compulsory education to all children up to the age of 14 years was passed in the parliament in 2009 and "The Right of Children to Free and Compulsory Education" came into force in April, 2010. It is mandatory for the state Government to implement the act and accordingly the Government of Assam issued notification on 11th July 2011 as "The Assam Right of Children to Free and Compulsory Education Rules, 2011".

RMSA - Assam has taken up various activities such as infrastructure development, teacher's recruitment, establishment of model schools, establishment of girls' hostels and teachers in service training to uplift the secondary education in Assam. As per the mandate of RMSA, all schemes as mentioned earlier are centrally sponsored and the state Government has to provide 10% matching share in the state, as is declared for all North Eastern States including Sikkim. Listed below are the major activities of RMSA-Assam during Twelfth Five Year Plan:

a. Establishment of new schools and up gradation of upper primary schools to secondary schools. The total requirement in the state is 3957 schools of which 2607 exists.

b. Establishment of new Higher Secondary School and up gradation of existing upper primary school to higher secondary school. The total requirement in the state is 3100 schools of which 645 already exists.

c. To establish 23623 additional classrooms as per population projection at secondary level in the state of which 2204 has already been approved by Govt. of India.

d. To establish 19293 additional classrooms as per population projection at higher secondary level in the state of the total requirement of 31000 classrooms of which 1887 already exist and 9820 are rooms of new schools.

e. Integrate science laboratory. The total requirement is 2607 of which 149 laboratories exist and 1038 has already been approved by Govt. of India. The target to achieve is 1420 science laboratories in the secondary section.

f. Subject wise 3 science laboratories per school of higher secondary sections.

g. Laboratory equipments for all 7057 secondary and higher secondary schools of which 1038 schools is being granted by Govt. of India.

h. Construction of Headmaster and Principal room.

1.3 Emerging Issues and Challenges

Assam is a state of multi-ethnic societies with a heritage belonging to the Golden Era of Indian History. Some of the oldest tribal communities like Mongoloids and Australoids are found in the state of Assam. On the basis of the geographical location, various tribal sects of different corners of Assam symbolize a different social custom and culture. Among the prominent tribal communities that are still found in Assam the names of Dimasas, Karbis, Khasis, Bodo Kacharis, Lalungs, Garos and Jaintias are worth mentioning. Also the tea garden community in Assam has a substantial population of labors which the British brought from tribal/ adivasi areas of present day Jharkhand, Bihar, Orissa, Andhra Pradesh etc. Forty Five different languages are spoken by the various communities of Assam. The State has a population of 311.7 Lakhs with a population density of 398 persons per km2 and the sex ratio is 954 (females per one thousand males). An agrarian economy since time immemorial, more than 80% of Assam's workforce is engaged in the agricultural and allied activities while the urban population is about 13% only. The literacy rate of the State is 73.18% of which the male and female literacy rates are 78.81% and 67.27% respectively.

The universalization of education has become the top priority for developing country like India. But the extension of quality education to remote and rural regions like North East India with multi-lingual and multi-cultural population separated by inaccessible hilly terrains becomes not only a difficult task but also involves huge budget and a time taking

process. The lack of adequate rural infrastructure and non-availability of good teachers in sufficient numbers is adversely affecting the teaching-learning process and hence the goal of quality education is far from reality in this region, especially in rural areas.

With near attainment of the universalization of elementary education in the State, a huge pressure has built up to cater to the requirement of continuing education at the secondary stage. Overcoming perennial problems of floods, inaccessibility, lack of adequate infrastructure and investments on the same, still institutions have come up in almost every block if not villages in Assam. Necessary thrust has also been given by both Government and non Government organizations to set up secondary schools. But the same has not resulted in increase in the quality of education and the single most contributing factor for the same being the lack of qualified and trained teachers. Also the lack of qualified and professionally trained school principals and schools being managed by acting principals/ senior teachers adds up to the problem.

The problem of quality assurance in Assam gets more complicated due to the existence of an unique phenomenon that exist nowhere in India and that is of establishment known as 'venture schools'. Such schools are established by the education loving local people in areas where no recognized school exist. According to a survey conducted by the State Resource Center of Assam, enrollment in Venture Schools was found to be 27.72% in Pragjyotishpur Sub-Division under Kamrup District of Assam, which incidentally happens to be one of the most developed Districts in Assam. On this basis, the all Assam figure of such schools and enrollments therein will be quite high.

The major problems of secondary education in the state of Assam, includes:

- Undue importance on examination

- Non-availability of trained teachers in special subjects

- Irregularity in appointment of teachers

- Absence of regular supervision of schools by authority

- Non-availability of text-books in time due to delay in publication

- Lack of adequate infrastructure in most of the schools

- Lack of vocational courses

- Failure of work experience as a compulsory subject

- Disturbances created by frequent agitation called from time to time by various organizations

- Problems created by natural calamities – perennial floods, erosion etc

- Lack of parent teacher cooperation

- Lack of proper educational guidance facility

- Lack of facilities of personality development of students

- Lack of periodic health check up facility in school

- Lack of research on problems of secondary education

1.4 Status of School Principals in Assam

The selection of Principals in the state of Assam is conducted by the Selection Board under the Directorate of Secondary Education, and the qualification specified for a Secondary School Principal is Graduation preferably with B.Ed and 07-10years of teaching experience. The B.Ed as an essential qualification for consideration of application to the post of Principal in Secondary schools in Assam was adopted in 1993 but the same could not be implemented due to opposition from the incumbent principals/

headmasters and well as aspiring applicants, which eventually was stayed by the Gauhati High Court. Finally in 2010 the same is being implemented. And in case of a Higher Secondary Principal, Post Graduation Degree is mandatory and the aspect of B.Ed is not clearly mentioned.

Due to the inadequacy in number of qualified personnel, more often than not, the Principal's position is occupied by the senior most teachers in the school. They serve as Acting- Principal/ Headmaster.

The recent developments since the inception of RMSA, Assam; and initiatives taken in terms of providing orientation to the serving school principals on various aspects of school management is indeed a positive sign towards enhancing the quality of school education in the state of Assam. More so in context of the Govt. / Govt. Aided schools, which are the ones that faces real challenges in terms of ensuring enrollment, checking drop-outs and providing quality education. This is so because of the fact that, such schools are having its presence felt in the rural and interior areas, where the presence of privately managed schools is less. It is these Govt. / Govt. Aided schools in true sense that needs to be boosted up in its endeavors of educating the lesser privileged section of the society and at the same time ensure quality education. School principals are indeed aware of these responsibilities, but are helpless in creating provisions either due to the lack of funds or due to the lack of professional competence. And measures initiated by RMSA towards developing and empowering school principals must be a continuous

effort in order to ensure life-long learning experiences in terms of professional development.

Secondary Education today is under tremendous pressure towards providing quality education and at the same time to cater for the requirement of growing demands of the population. A major challenge before educational planners, educational administrators, educational researchers, teachers and managers of Education, thus, is to devise and organize a system of Secondary Education which would both widen access to it and simultaneously ensure relevant and quality Education. The following section provides the conceptual framework of the study.

1.5 Conceptual Framework of the Study

A quality system has its reflections in the quality of its output, which essentially would involve quality of its input as well as its process. This applies to the Secondary Educational system too, and the effectiveness of such system results from its effective management and leadership. An educational system consists of inputs, processes, outputs and feedback. Inputs represent the base or starting point for the educational system and include the beginning of knowledge and skills brought into the system by the teacher and the students, as well as their motivation and effort, the goals and purposes of instruction set by the society, and the resources available to do the job. The process component includes the various methodologies applied in the teaching/ learning situation to achieve the stated goals. The following figure 1 describes the structure of educational system.
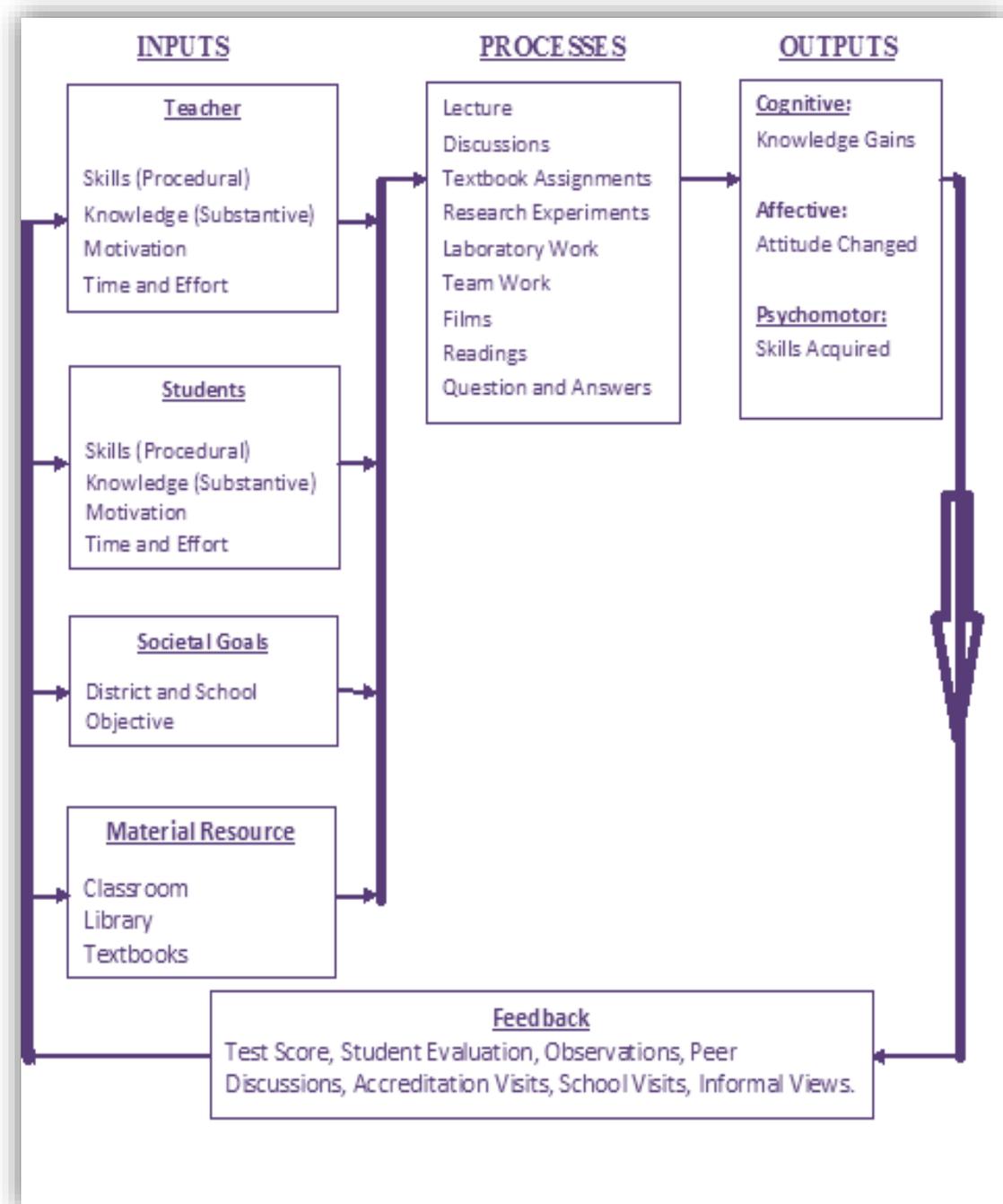
Figure 1: Structure of the Educational System

Source: Anglin et al, 1982

The processes used cover such diverse activities as lecture and discussions, textbook assignments, and research experiments. Outcomes – or the results of the educational

system i.e. the output broadly falls under three categories: Cognitive (knowledge gained), Affective (attitude changed), and Psychomotor (skills acquired).

The feedback component continuously monitors the educational system. Teachers and administrators receive feedback through test scores, student evaluations, and observations regarding effectiveness of student performance. Students receive feedback from these sources as well as from peer discussions. The progress of school is also monitored and evaluated by the parents, the community at large, and regulatory agencies through a variety of formal methods such as report cards, test scores, accreditations and informal methods ranging from school visits to word of mouth. Such feedback serves two broad purposes: 1. Confirm successful practices and 2. Identify areas that need to be redesigned, revised or eliminated from the educational system.

In order to ensure a quality system in place, the school administration in general and the school principal in particular should be able to exercise their leadership over aspects that lead a school towards effectiveness. And studies reveal that successful leaders possess certain professional competencies, which can be enhanced through effective professional development program.

The researcher had undertaken this study to develop the e-Learning program for enhancing the professional competencies of secondary school principals in the state of Assam, based on the following assumptions -

i. Schools needs to be effective and efficient for assuring Quality Education by delivering knowledge, attitudes, skills, values and habits among learners.

ii. Professionally Competent Principals can only transform Schools to Effective Schools

iii. Principals with necessary Professional Competencies can exercise their Leadership Position in Schools more effectively.

iv. Training and Development enhances such Professional Competencies.

v. Technology enabled learning environment may be conducive for the professional development of school principals.

Keeping the above assumptions in mind, the researcher has developed the conceptual framework and described in details the concepts and theories related to this research study:

1.5.1 School Effectiveness

In defining "effectiveness" a number of terms and concepts constantly crop up, including efficient, improvement, quality, development, evaluation, monitoring, reviewing, professional, appropriateness, accountability, performance etc. which shows that the concept of effectiveness is very broad, ranging over purpose, effort and accomplishment. Measurement may be used but it also involves judgment.

The determinants are manifold and complex. Thus the heads may perceive the school's effectiveness as the pupil's performance in external examinations. The parents may perceive the school's effectiveness in the way pupils behave at home, and perform at national examinations. Society may perceive school's effectiveness in terms of good moral behaviour of the children. The Government may use a combination of indicators.

Specific school process & characteristics of Effective Schools as summarized by Lennart Grosin in his essay on 'Effective schools and Equality' 1997 says:

1. Instructional leadership characterized by openness towards teacher values and preferences, which is both forceful and democratic and gives priority to developing the school as an institution for principally teaching and learning;

2. Cooperation amongst teachers with respect to teaching goals and methods as well as to the socialization of the pupils;

3. An emphasis primarily academic concerns within the context of the whole institution;

4. High expectation based on the view that all children are able to learn and that the ability to learn in contingent upon the children's social and ethnic origin;

5. Elements of teaching and understanding and to reach high order cognitive skills for all pupil;

6. Regular evaluation;

7. Encouragement and reinforcement of good work.

8. Structured sessions with limited focus and where the teachers interact with the class by mixing whole class teaching with individualization which takes into account the pupil's abilities;

9. Fostering good working conditions and order within the context of the whole institution as well as consequent but moderate sanctions for improper conduct;

10. Positive relationship between teacher and pupils based on mutual respect and trust;

11. And the teacher's role as a model and a person of authority.

Brookover (1993) on effective schools say schools which "… Maximizes the mastery of common educational goals for all students. One in which a little or no difference in the achievement of these goals by the affluent, advantaged students and the 'disadvantaged' students"

Quality of an educational system is judged by its effectiveness in ensuring the anticipated outcome. Research on 'effective schools' and 'school effectiveness' has gained momentum during the last two decades of 20th century and studies reveal about the importance of this concept on the overall school improvement plan. Dr. Larry Lezotte was one of the the pioneers of Effective Schools movement, which began in 1966 in response to a controversial report written by sociologist James Coleman. Coleman's report stated that schools could do little to support students' academic achievement, because achievement was predominantly related to the demographics and socioeconomic class of the surrounding community.

In 1991, Lezotte published *Correlates of Effective Schools: The First and Second Generation*, describing the "7 Correlates of Effective Schools" as:

1. Instructional leadership.

2. Clear and focused mission.

3. Safe and orderly environment.

4. Climate of high expectations.

5. Frequent monitoring of student progress.

6. Positive home-school relations.

7. Opportunity to learn and student time on task.

An effective school must first be a place where students can feel safe both physically and emotionally, a supportive community irrespective of sociological background where the students and the teachers can focus on learning. Effective schools expect students to succeed and set high expectations for the students, which in turn help students to improve. And such improvements needs to be periodically monitored in terms of students' progress by way of conducting tests, written evaluations etc which in turn makes the teacher aware about his/her teaching and learning process enabling the teacher to proactively change and adopt new methods. All these are to be accomplished by the school within a specific time frame, and keeping this in mind, teachers in effective schools create syllabus for not just all material to be covered, but also for it to be mastered.

The most effective schools have what Lezotte calls an authentic partnership with parents. At its basic level, teachers and staff must be able to rely on parents to get their children to school on time and with due regularity, and parents must feel assured "that their children are entering safe and caring place." Maintaining a open line of communication between the teachers and parents contributes further to the learning process and thus helps the teacher to accomplish better in context of managing the curriculum within a scarce time. Because a better communication ensures the student to make most in terms of learning and completing assignments as parents are encouraged to devote time to tutor and guide their child.

"Vision animates, inspires, transforms purpose into actions," says Warren Bennis, a pioneer in the field of leadership studies. An effective principal must uphold the vision for the school and clearly articulate the same in front of teachers, administration and parents in order to realize higher achievement for the school. In an effective school, the principal is a "leader of leaders." According to Lezotte, the principal is merely not an authority figure, but also a "coach, partner, and cheerleader." It is not the top-down authority structure that prevail, but a more relatable one where best solutions are arrived at by a collaborative effort.

In today's context, effective schools to sustain its effectiveness needs to be competitive and continuously embrace innovation and manage change in a smooth manner. With the current reforms taking place in the field of education, the process of transformation can effectively be handled only by a strong school leadership. A leader empowered with a strong knowledge base can proactively handle such change and streamline the process of transformation. A professionally competent Leader can exercise his leadership position in the school effectively and hence make schools effective. The following section explores into the area of school leadership.

1.5.2 School Leadership

As discussed above it was clear that the school principals are not merely an authoritative head but are the one's providing leadership, managing change and ensuring school effectiveness.

The Principal is responsible for the management and day-to-day operations and business of the school. The authority to exercise managerial powers is delegated from the Board, which retains responsibility for the overall governance of the School. The Principal

oversees the educational programs and developments in the school (and in the broader educational community) and must keep Board Members abreast of these issues. It is critical that the Principal and the Board have confidence in one another.

Principal usually occupies a unique position in a school system and in order to achieve good governance practices the Principal needs to have managerial roles, responsibility and accountability similar to those of the Chief Executive Officer of a commercial undertaking. It is important that the roles, responsibilities, delegations and authority of the Principal are clearly defined and understood. Principals play a vital and multifaceted role in setting the direction for schools that are positive and productive workplaces for teachers and vibrant learning environments for children. The ability to take charge and get things done in the face of complex and trying circumstances is the essence of Leadership, and the same holds true for School Leadership too.

Principals/ Headmasters or Head teachers etc as the designation may be are the administrative head of the school as a system. Traditionally, the Principal resembled the middle manager in William Whyte's 1950'sclassis *The Organization Man*- an overseer of busses, boilers and books. Today in rapidly changing era of standards based reforms and accountability, a different conception has emerged. Globally there is a growing concern that in the 21st century the preparation and in-service development for educational leaders is inadequate (Brundett & Crawford, 2008, Hallinger, 2003). The intensity of this statement is further heightened by OECD Report on improving School Leadership (Vol 1, p.16) which states:

There is a growing concern that the role of school principal designed for the industrial age has not changed enough to deal with the complex challenges schools are facing in the 21st century.

Institute for Educational Leadership. (2000, October) states that, schools of 21st century require a new kind of principal, one who fulfils a variety of roles:

Instructional Leader: The principal who is focused on strengthening teaching and learning, professional development, data-driven decision making and accountability.

Community Leader: The principal aware of the school's role in the society; shared leadership among educators, community partners and residents; close relation with parents and others; and advocacy for school capacity building and resources.

Visionary Leader: The principal having a demonstrated commitment to conviction that all children will learn at high levels and is able to inspire others inside and outside the school building with this vision.

Priority emphasized on instructional leadership – leadership for learning. Principals of today's school must be able to

- Lead Instruction
- Shape an organization that demands and supports excellent instruction and dedicated learning by students and staff and
- Connect the outside world and its resources to the school and its work.

Attributes of effective school principals show successful leaders influence student achievement through two important pathways – the support and development of effective teachers and implementation of effective organizational processes. A Professionally

competent school principal can exercise his leadership position in making schools effective. A competent principal exhibits proficiency in matters related to management and administration of the school as well as exercises his instructional leadership in making the school system effective. The following section explores into various task responsibility areas and the professional competencies of school principals.

1.5.3 Professional Competencies

The competencies are statements of what School Principals should be able to do. They are organized into four broad domains: strategic leadership, instructional leadership, organizational leadership, and ethical leadership.

A professionally competent Principal will be able to deliver quality required and desired in today's educational scenario. A judicious balancing act has to be performed by the Principals today in order to overcome systemic limitations/ trying conditions and yet deliver quality in order to sustain effectiveness of the school education to meet the growing demand of continuous societal changes. Competencies may be defined as a combination of attitudes, knowledge and skills.

Competencies are descriptions of performances anticipated. Competencies when specified as performances in realistic, task relevant situations assist in focusing on behaviour. Competency statements define the behaviours associated with performance desired and also describe the on the job context within which such behaviours need to be manifest, expectations for performance become clear. (Harris and Monk, 1992)

If the description of performance matches the actual, demonstrated, observable performances, no problem exists. Often competencies are not identical with actual

performance. In fact we have to describe competencies in the absence of a specific performer. Competencies are efforts to describe, what is expected, hoped for, desired, anticipated, recruited, being trained for and so on. Job analysis techniques identify tasks but competencies make performance explicit. (Harris and Monk, 1992).

Competency is defined as an underlying characteristic of a manager casually related to superior performance on the job (Boyatzis, 1982). It is the ability to perform the activities within an occupation or function to the standards expected in employment (Training Agency, 1989). It is a wide concept which embodies to transfer skills and knowledge to new situations within the occupational area (BTEC, 1990). In short, competencies are manifested in one's day to day management and administration of certain key functional areas at work and in order to understand the areas where a Principal needs to be competent, one must require a comprehensive understanding on the role that a school principal is supposed to play in his/ her day to day work life.

According to Harris, Mc Intyre, Littleton & Long (1985:95:96) competencies of educational managers can be specified in nine task areas:

    i. Developing curriculum.

        a. Setting Instructional Goals.

        b. Designing Instructional Skills.

        c. Develop and adapting curriculum.

    ii. Providing material.

        a. Evaluating and selecting learning material.

        b. Producing learning material.

     c. Evaluating utilization of learning resources.

iii. Providing Staffs for instruction.

     a. Developing a staff plan.

     b. Recruiting and selecting personnel.

     c. Assigning personnel

iv. Organizing for instruction.

     a. Revising existing structure.

     b. Assimilating program.

     c. Monitoring new arrangements.

v. Relating special pupil service.

     a. Analyzing and securing services.

     b. Orienting and utilizing special personnel.

     c. Scheduling services.

     d. Evaluating the utilization of services.

vi. Arranging for in service education.

     a. Supervising in clinical mode.

     b. Planning individual growth.

     c. Designing in service training session.

     d. Conducting in service training session.

e. Training of leadership roles.

f. Assessing needs for in service education.

g. Developing a master plan.

h. Writing a project proposal.

i. Designing training program service.

vii. Developing public relations.

a. Informing the public.

b. Planning for remodeling.

c. Utilizing Public opinion.

viii. Providing facilities for instruction.

a. Developing educational specification.

b. Planning for remodeling.

c. Outfitting a facility.

ix. Evaluating instructional methods.

a. Observing and analyzing teaching.

b. Designing a questionnaire.

c. Interviewing in depth.

d. Analyzing and interpreting data.

Mukhopadyay and Narula (1990) at National Institute of Educational Planning and Administration of India, identified 54 competencies in eight functional areas that a head of a school needs to possess. The functional areas were:

- Academic Areas of Management

    1. Admission of students and streaming at XI Grade

    2. Curriculum Planning and Management

    3. Management of Instruction (Teaching)

    4. Management of Co-curricular Activities

    5. Management of Examination and Evaluation

- Personnel Management

    1. Personnel Records

    2. Staff Appraisals

    3. Staff Welfare

    4. Dealing with Teachers Association/ Union

    5. Job Allocation and Management

    6. Conducting Staff Meetings

    7. Staff Development (Recruitment)

- Financial management

    1. Budgeting

2.   Mobilization of Resources

3.   Resource Utilization

4.   Maintenance of Accounts

5.   Monitoring

- School Plan and Infrastructure

    1.   Construction and Extension of Buildings

    2.   Utilization and Maintenance

    3.   Library Services

    4.   Laboratory Facilities

    5.   Hostel Management

    6.   Audio Visual Aids

    7.   Management of Sanitation (Drinking Water, Toilet Facilities etc.)

    8.   Sports and Games Facilities

    9.   Work Experiences

- Linkages and Interfaces

    1.   Parents – PTA

    2.   Old Students

    3.   Immediate Neighbour and Community

    4.   Local Bodies

5. Authorities at District and State Levels

6. District and State Level Agencies – other than Education

7. Educational Organizations at Local, State, National and International Levels.

- Student Services

    1. Management of Student Information System

    2. Guidance and Counseling Service

    3. Student Amenities

    4. Incentives and other Facilities (Mid Day Meals etc)

    5. Involvement and Student Participation.

- Methodological Competencies : Methods of Procedures

    1. Inventory Control and Management

    2. Costing and Cost Optimization

    3. Organizational Diagnosis and Need Assessment

    4. Project Formulation and Management

    5. Knowledge of Relevant Rules and Regulations (State Education Acts)

    6. Knowledge of various procedures, e.g. purchase, writing off, departmental inquiry, performance appraisal etc.

    7. Institutional Planning

8.   Institutional Evaluation

- Behavioural Excellence

    1.   Communication – Oral and Written

    2.   Leadership Skills

    3.   Team Building

    4.   Decision Making

    5.   Conflict Management

    6.   Management of Motivation

    7.   Time Management

    8.   Management of Innovation and Change

Comprehensive as it is, the list has left out: gender issues, and the need to make greater use of information technology in school management and instructional works.

Synder, J. Karolyn (1998) at University of South Florida prepared a model for Productive School Leadership which included ten competencies divided across four school management clusters. The following figure 2 highlights the competencies as divided across the management clusters.

Figure 2: Competencies Across Four Management Clusters

Organizational Planning	Developing Staff	Developing Program	Assessing School Productivity
1. School wide goal setting	4. Staff Development	8. Instructional program	10. Assessing achievement
2. Work Group Performance	5. Clinical Supervision	9. Resources development	Student achievement
3. Individual Staff Performance	6. Work Group Development		Teacher achievement
	7. Quality Control		Work group achievement
			School Achievement

Ref: Synder, J. Karolyn (1988) Competency Training for Managing Productive Schools, University of Florida

Professional leadership is the necessary factor for successful implementation of decentralized management of education at all levels. At this juncture, a systematic and need based professional preparation of Principals, teachers, parents and members of the community is needed. Effective leadership is exhibited by those who are continuously updated in their knowledge base, and who are capable of employing that knowledge skillfully in the day to day management of institution.

In order to be effective as a leader, the principal of a school is expected to possess certain professional competencies and such competencies can be developed through effective training program. So there is a need of some kind of support system for excellence in principals. This support system shall include identification of those competencies, basic

to effective management of schools and developing self learning modules which the principals can have access too. And such modules can be in form of e-Learning system that provides the learner with adequate flexibility.

The learning techniques that are used for training programme are: Lecture, Audience Reaction Team, Listening Team, Panel, Colloquy, Brainstorming, Demonstration, Buzz Question, Case Method, Role Playing, Forum, Round Table Conference, Image Sharing, Conversation etc. Employment of such techniques required organized participation.

The Commonwealth Secretariat, London identified the Department of Educational Administration at the MS University of Baroda as a nodal centre to hold the Asia-Pacific Workshop on "Head Teachers Training and Resource Materials Development" and the workshop (1996) has identified three levels of training:

Awareness which should incorporate discussion on recent government initiations and policy guidelines

Enrichment which should impart the additional skills needed to become confident and competent administrators

Fine Tuning where specific deficiencies in the trainee's competencies can be identified and strategies devised to improve skills.

Self-instructional materials as developed on the following aspects of

- Self-development for educational managers

- Principles of Educational Management

- Personnel Management

- Managing the Curriculum and Resources

- Financial Management

- Monitoring School Effectiveness

- The Governance of Schools.

The methodologies for the training programmes suggested were both technical and practical session consisting of role play, situation analysis, case method, self-reflection, action research etc. And to make such training programmes successful and effective as regards to its reach, appropriate use of information technology can be made such that the training programme is accessible to the principals from all corners irrespective of their distance and convenience of time.

The procedure that is followed in the process of selection of principals in secondary schools in India, does not put necessary emphasis on the element of experience, training and development in the field of educational administration and management. Hence, it would be wrong to expect the efficient teacher who is promoted to the position of a school manager i.e. the principal, to be an equally efficient manager. However, studies have revealed that the necessary skills that enhance the professional competencies of a school principal can be imparted through effective training & development programs. Professional development of school heads (pre-service and in-service), preparation of aspiring individual for Principalship are accorded with top priority today. The following section explores into the area of professional development.

1.5.4 Professional Development

Professional development generally refers to ongoing learning opportunities available to teachers and other education personnel through their schools and districts/ departments/ boards of education. Effective professional development is often seen as vital to school success and teacher satisfaction, but it has also been criticized for its cost, often vaguely determined goals, and for the lack of data on resulting teacher and school improvement that characterizes many efforts.

With schools today facing an array of complex challenges—from working with an increasingly diverse population of students, to integrating new technology in the classroom, to meeting rigorous academic standards and goals—observers continue to stress the need for teachers to be able to enhance and build on their instructional knowledge.

Fullan (1991) opines "the sum total of formal and informal learning experiences throughout one's career from pre-service teacher education to retirement" (p. 326).

Considering the meaning of professional development in the technological age, Grant (n.d.) suggests a broader definition of professional development that includes the use of technology to foster teacher growth:

"Professional development ... goes beyond the term 'training' with its implications of learning skills, and encompasses a definition that includes formal and informal means of helping teachers not only learn new skills but also develop new insights into pedagogy and their own practice, and explore new or advanced understandings of content and resources. This definition of professional development includes support for teachers as they encounter the challenges that come with putting into practice their evolving

understandings about the use of technology to support inquiry-based learning.... Current technologies offer resources to meet these challenges and provide teachers with a cluster of supports that help them continue to grow in their professional skills, understandings, and interests."

Parsing the strengths and weaknesses of the vast array of programs that purport to invest in teachers' knowledge and skills continues to be a challenge. Today, professional development activities include formal teacher induction, the credits or degrees teachers earn as part of recertification or to receive salary boosts, the national-board-certification process, and participation in subject-matter associations or informal networks. (Sawchuk, Nov. 10, 2010a).

In order to understand the importance of Professional Development in Schools it is important to understand what better or effective schools are and how a school transforms itself towards being effective in providing good education. Good Education is not only about physical inputs, such as classrooms, teachers, and textbooks, but also about incentives that lead to better instruction and learning. Education systems are extremely demanding of the managerial, technical and financial capacity of government, and, thus, as a service, education is too complex to be efficiently produced and distributed in a centralized fashion (King and Cordeiro-Guerra, 2005; and Montreal Economic Institute, 2007), Hanushek and Woessmann (2007) suggest that most of the incentive that affect learning outcomes are institutional in nature, and they identify three in particular: (i) choice and competition; (ii) school autonomy; and (iii) school accountability. The idea behind choice and competition is that parents who are interested in maximizing their

children's learning outcomes are able to choose to send their children to the most productive (in terms of academic results) school that they find.

This demand side pressure on school will thus improve the performance of all schools if they want to compete for students. Similarly, local decision making and fiscal decentralization can have positive effects on school outcomes. School based management (SBM) as a concept thus grew in its importance in developed countries, whereas in developing nations like India, the idea of school based management is less ambitious, in that it focuses mainly on involving community and parents in school decision making process rather than putting them entirely in control. SBM in almost all its manifestations involves community members in school decision making, however the Principal's role in the process of administration as well and instructional management and towards ensuring quality education, is immense and it is the principal's position which appears to be accountable.

A pre-requisite in designing a scientific training system is to identify needs of training, may be through a survey or task analysis and finding its relative importance. Several studies have been conducted either on task analysis or training need assessment of heads of schools (Kapoor 1987, Bhagia et al.1987, Hamed 1987, Goel 1990, Mukhopadhyay and Narula 1990, Allen 1994, Richardson 1993, Sparks 1997, Thompson 1993, Sybouts et al 1994). These studies emphasized that the staff development programme should include knowledge, skills and attitudes regarding organizational development. Identification of training needs involve evaluation and appraisal of what happens now and what should be the performance after training. The programmes needed to be well

planned and well designed. Once the needs have been identified, the next step is to chalk out appropriate course of action to be taken.

The importance of training and development of school principals to enhance their professional competencies and make schools effective is well understood and recognized. But somehow such programmes are either not taking place effectively or at the worst situation it is never given its due importance. The same maybe attributed to the lack of technical expertise in sufficient numbers to deliver the training & development programmes such that it reaches each and every school principals across the country. And to effectively implement such training and development programme, the use of ICT in training & Development and more specifically e-Learning appears to be the most feasible solution which can cut across the barriers of time, money, energy and geography and yet provide the school principals with necessary assess to be updated in their knowledge base and thus be effective.

1.5.5 Technology Enabled Professional Development

School leaders are adult learners and need to be involved in determining their own learning needs. Tusting and Barton (2006) make two key points of adult learning:

1. Adults have their own motivation of learning. Learners build on their existing knowledge and experience. They fit learning into their own purposes and become engaged in it. People's purpose for learning are related to their real lives and the practices and roles they engage in outside the classroom.

2. Adults have drive towards self direction and towards becoming autonomous learners. Learning is initiated by the learner, and one role of the teacher is to provide a secure environment in which learning can take place.

Malcom Knowles popularized the use of andragogy for English language reader and according to him andragogy was premised on at least four crucial assumptions about the characteristics of adult learner, a fifth one was added later (Smith, 2002). These assumptions were: Self Concept, Experience, Readiness to Learn, Orientation to Learning and Motivation.

Personalized learning may also be achieved through e-Learning. Chong et al. (2003: 165), referring to Singapore context, say that information technology means that 'employees could have individualized learning programmes on demand'. The following section deals with the use of e-Learning for professional development, e-Learning methodology, principles of e-Learning and e-Learning content development and delivery.

1.5.5.1 e-Learning for Professional Development

e-Learning refers to the way a professional development program is delivered. It is a form of distant learning which is made available to the learners either in an online mode or offline mode. Online access in today's environment brings in front of the learner a wide range of open educational resources, which are freely assessable. Offline mode refers to the availability of learning material in the form of CD-ROMS etc.

Studies reveal that e-Learning suitably caters to the requirement of self-learning attributes of an adult learner giving them necessary freedom to chose from the contents, decide for

themselves what they need to learn or what knowledge they want to acquire at the convenience of their own place and time and indulge in self-paced learning.

e-Learning is the use of technology to enable people to learn anytime and anywhere and includes training, the delivery of just-in-time information and guidance from experts. It is also defined as the learning which takes place in an electronically simulated environment. The e-Learning programs so developed, may be classified into Synchronous and Aschynronous learning.

"Synchronous learning" refers to a process where the instructor and students come together at the same time. Synchronous e-Learning lets teachers conduct classes over the Internet. The synchronous technologies also allow people to interact with peers and experts. It includes Virtual Classrooms, Audio-Video Conferencing, Chats, Shared Whiteboards, Application Sharing and Instant Messaging.

"Asynchronous Learning" on the other hand refers to the process of learning which takes place anytime, and are also referred to as Self-Paced courses. The obvious advantage of a self-paced course is convenience. People can get the training they need at any time. This can include just-in-time training where a person gets exactly the training he or she needs to perform a task. Self-paced courses are created with e-Learning authoring tools. Self-paced courses can be delivered in many ways including: Internet, Intranet of Local Area Networks and CD-ROM or DVD.

An e-Learning program exhibits the following advantages both to its targets (learners) as well as its providers.

Lower Costs and Larger Capacity: With e-Learning, the learners don't have to physically attend classes, seminars or training programs. e-Learning is web-based and disk-based so participants don't have to spend a lot of time away from their work. They can choose how much time or what specific time to devote to learning the subject matter offered. A web-based e-Learning program is a lot less expensive to maintain. Providers need only maintain the networking infrastructure that will deliver their e-Learning content to their students and participants. Such programs allows for more participants than traditional learning methods since the number of participants is not constrained by venue limitations.

Convenient Learning: Learners can fit their learning activities easily with their daily routine. They need not leave home to participate in an e-Learning program and learning does not require complex logistics. All a participant needs is a computer, internet connectivity, access to the web-based server, and if necessary, the special e-Learning software provided by the e-Learning program operators/ providers.

Easily Updated and Upgraded: e-Learning modules can be easily revised. Activities can be easily added and incorporated. The e-Learning software can also be automatically updated by connecting to the server. This is definitely a lot faster than retraining professors and reprinting books and manuals.   And more importantly, e-Learning platform does provide the learner access to various source of knowledge, which they may access in the presence of a facilitator or even by own self. The path and links as made available in today's learning environment through e-Learning, opens up a wide window to the development of knowledge.

1.5.5.2 e-Learning Principles

Developing effective e-Learning program revolves around the ability of the developer to blend pedagogy with the latest technological advances made in the electronic medium and communication technology. An approach to the development of effective e-Learning programs for Becta, the British Government body which promotes technology in learning (Prof. Anderson and McCormick 2005) suggest ten principles that may help designers to construct pedagogically sound e-Learning materials and related activities. They are:

1. **Match to the Curriculum:** The pedagogy should be matched to the appropriate curriculum through clear objectives; the relevance of content covered; the appropriateness of student activities; and the nature of assessment. Learning objectives or learning goals in terms of statements that describe what the learner should be able to do as a result of the learning process.

2. **Inclusion:** The pedagogy should support inclusive practices seen in terms of different types and range of achievements; physical disabilities that can be particularly supported by e-Learning; different social and ethnic groups; and gender.

3. **Learner Engagement:** The pedagogy should engage and motivate learners. This engagement should be evident in an ethos of being both educational and motivating.

4. **Innovative Approaches:** it should be evident why learning technologies are being used, rather than non-technological approach which achieves the same end as effectively.

5. **Effective Learning:** This principle can be demonstrated in a variety of ways: for example, by using a range of different approaches in the learning platform that will allow the student to chose one that suit them, or that can be personalized to them, or by satisfying a number of characteristics of good learning (learner agency, learner autonomy, enabling or encouraging collaboration).

6. **Formative Assessment:** the pedagogy should provide formative assessments that provide immediate feedback on performance.

7. **Summative Assessment:** The summative assessment must be valid and reliable; comprehensible by teachers, learners and parents, able to deal with range of achievement levels; and free from adverse emotional impact on the learner.

8. **Coherence, Consistency and Transparency:** The pedagogy must be internally coherent and consistent in the way the objectives, content, student activity and assessment match to each other. It must be open and accessible in its design.

9. **Ease of Use:** e-Learning should be transparent in its ease of use.

10. **Cost-Effectiveness:** Technology solutions need to be justifiable and affordable and the costs sustainable.

Further, application of the five principles of adult learning (Knowles 1984:12; Smith 2002) in developing content for professional development program using e-Learning as a medium (QOTFC, 2005) provides the developer with the following guiding principles:

1. Adults are internally motivated and self-directed,

2. Adults bring life experiences and knowledge to learning experiences,

3. Adults are goal-oriented,

4. Adults are relevancy-oriented,

5. Adults are practical, and

6. Adult learners like to be respected.

In light of the above discussion, the important points to be considered in developing e-Learning program for professional development of school principals must cover the following aspects: recognition of need for professional development, relevance of content, clearly defined learning objectives and outcomes, goal orientation, self-paced, user-friendliness, activities related to experiences of the learner, self-motivating, individualized, etc. Opportunities should be provided that enables the learner to reflect and get involved in the learning process and to collaborate with peer-groups to enhance learning experiences.

A range of indicators of effective practices in e-Learning:

- Providing pre programme diagnoses

- Optimizing peer to peer and reciprocal learner to facilitator communications

- Encouraging a group dynamic to promote collaborative working within an e-Learning environment

- Ensuring fast and reliable internet connection

- Building in systems that guide or pressure learners to complete the programme

- Assessing e-Learning activities so that they are an essential part of the programme.

- Ensuring that the programme has high status in the relevant community (McFarlane et al; 2003: 7)

1.5.5.3 e-Learning Content Development and Delivery

The design and development of effective e-Learning program involves complex process that requires a number of analytical activities to ensure learning. The model indicating five distinct stages of instructional system design (ISD) is represented by the acronym "ADDIE" which refers to Analysis, Design, Development, Implementation and Evaluation (Molenda, 2003). Figure 3 below shows the components of ADDIE model for ISD.
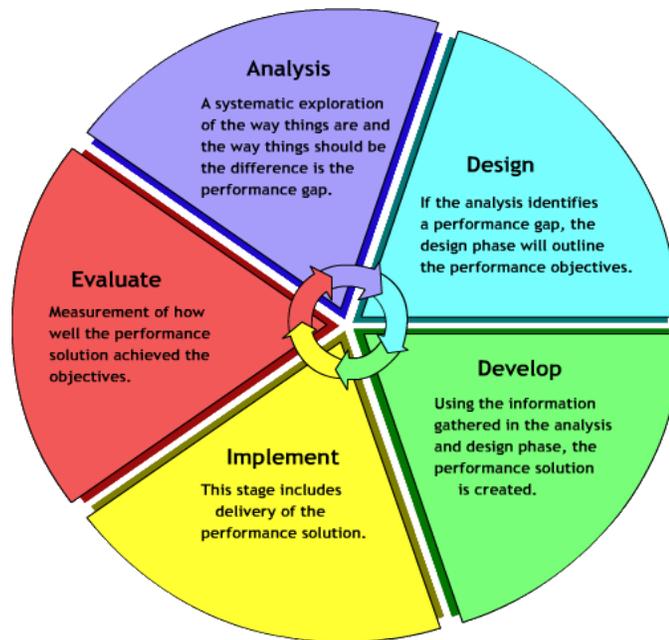

Figure 3: ADDIE Model (*source: http://www.csuchico.edu/idts/addie.php*)

ADDIE is recognized as definitive process model for instructional design and training development, and stated to be first developed during 1970's for the US Army. The same is also put to use in instructional design and content development for e-Learning, However, it is important to understand the fact that such design and development processes in context of e-Learning are highly iterative, with constant discussions and testing being made between the instruction/content developer and the e-Learning project

manager/ programmer. Figure 4 below highlights the different steps of ADDIE processes in instructional design and the flow indicates its iterative nature.
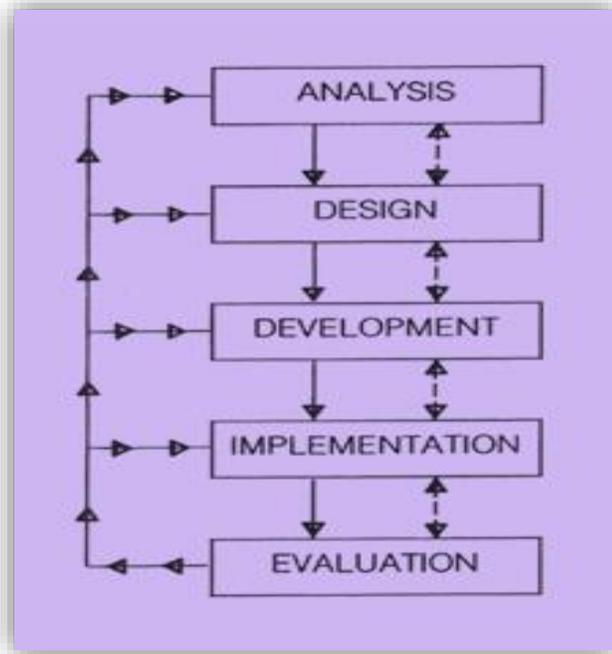

Figure 4: An ISD Model featuring ADDIE processes

Source: **Grafinger, Deborah J. 1988.** *Basics of Instructional Systems Development* **in Molenda (2003)**

The ADDIE process categorizes the instructional design process into five phases:

- **Analyze:**
  - Identify the learning problem
  - Analyze learner characteristics and the nature of the task
  - Identify learning constraints
  - Determine purpose of the task
  - Identify all instructional goals and objectives
  - Consider the learning environment, delivery options and the timeline for the project.
  - Formative evaluation

- **Design**

  - Specify learning objectives

  - Design story boards and prototypes

  - Determine the graphic design, user-interfaces and content

  - Formative evaluation

- **Develop**

  - Produce content and learning materials based on the design phase

  - Integrate with multimedia and establish links

  - Test programs and debug

  - Formative evaluation

- **Implement**

  - Deliver orientation to the learners

  - Observe and facilitate learning

  - Establish collaborative learning

  - Formative evaluation

- **Evaluate**

  - Determine the level of success by evaluating the needs for each individual objective.

  - Summative assessment.

1.6 Rationale for the Study

Traditionally, college and university based educational leadership programs have emphasized management and administrative issues rather than curricular and

instructional issues which is of paramount nature in context of judging the school as a system that produces quality. Hence it is important that in service short term programs directed towards professional development of the school principal are conducted. Such programmes must have continuity and be made mandatory in order to provide the school principal continuous learning experience that equips them with necessary knowledge and skill to exercise their leadership position in the school as a system. Need based Professional development programs are designed to meet specific training needs of the school principals, which are arrived at, based upon a thorough study on the task responsibility areas, identification of training needs (skill gap). And in order to make such programs effective and reach target audience in numbers, e learning program (online and offline) inclusive of self learning material, case studies etc act as a catalyst in the learning process.

The sensitive social fabric in Assam, with diverse socio-ethnic groups having their own languages and dialects, the varied geographical nature, the average socio-economic condition of the people, the polity, the rich bio diversity, diverse traditional and cultural values and practices, its proximity to the international borders makes education a challenging task to be accomplished by the Principal, where he/she is supposed to shoulder the burden of the societal progress with limited access to the basic resources required by the system of secondary school. Burgeoning problems such as lack of adequate infrastructure, quality human resource, application of appropriate technology, drop outs and absenteeism, diverse social issues and conflicts etc makes his/her task of managing the school a much more challenging job.

Earlier, in the state of Assam the training and development aspect in the most informal way was being carried out by the 'Adhi Vidya Parishad' which is the Principal & Headmaster's association and which forms the academic council having the Director Secondary Education, few senior Principals and Headmasters of the state and the Inspector of Schools. Training session is in the form of occasional workshop on certain skill enhancement like cash book preparation etc.

The conventional training programs require huge expenditure as well as time and convenience. Hence the researcher contemplates development of e learning program which shall basically self learning modules designed and developed keeping in mind the essential principles of adult learning, such that, there is created a 'pull for education' from the side of the school leaders. And the same shall provide adequate flexibility to the learners to learn and get self equipped with necessary skills as per their convenience of time and place.

The recent Policy directions both at the Central and State level focusing on the need for Training & Development of School Principals, this study would facilitate the policy implementation in the particular regions. Researcher has not come across adequate research in the area of professional development of school principals in Assam as well as the North eastern region, as they need special focus for quality education. Assam also shares boundaries with the seven sisters of North East India, and their resemblance with Assam shall make such modules applicable in their states too in times to come.

The recent step on Principals training and development by RMSA, Assam in association with Don Bosco Institute is indeed a welcome step. However, upon interaction with

various stakeholders it was felt necessary to provide school Principals with opportunity to engage in continuous learning, and e-Learning program may be considered as one such resource.

With the boost to ICT that is expected by the recent schemes from RMSA and the presence of satisfactory access to tele-communication and internet, creating provision for e-Learning professional development program may indeed provide the much needed impetus in engaging school principals effectively and professionally. As studies have shown the benefits of continuous professional development on school effectiveness, and by use of technology enabled professional development program the requirements of the adult learner in school principals too will taken care of.

1.7 Research Questions

i. What are the professional development needs of school principals in Assam?

ii. What are the policies and current practices of Training and Development of the school principals in the state of Assam?

iii. What is the perspective of the school principals towards such training and development programmes?

iv. Will the school principal welcome an innovative system of a flexible self learning module?

v. To what extent e-Learning mode can be used for training school principals.

vi. How can the credibility of such module be established?

1.8 Chapterization

The scheme of Chapterization is presented below:

Chapter 1

The first chapter deals with the introduction, development of secondary education in India, and the conceptual framework of the study in terms of school effectiveness, school leadership, professional competencies, professional development and technology enabled professional development programs. The importance of the study is emphasized.

Chapter 2

The literature review seeks to explore related studies made in context of professional development of school heads, the task responsibility areas of a school head and the professional competencies required by the school head in order to exercise their leadership position in the school and make the school effective. The professional development programs with application of technology and the area of e-Learning I also explored in terms of the content development, implementation and evaluation. Chapter 2 provides a detailed account of the Review of Related Literature.

Chapter 3

A detailed account of the research design and the methodologies adopted during various phases of this study is provided in the third chapter titled Research Methodology.

Chapter 4

The analysis of the data collected through various sources along with its interpretation and findings are presented in the Chapter 4 titles Data Analysis and Interpretation. Also a

detailed discussion in terms of the major findings and the implication of the study is being provided in this chapter.

Chapter 5

The summary of the study, suggestions for further research are included in this chapter titled Summary.

Developing professional development programme for school principals needs a strong base of similar researches specifically in areas related to task responsibility of school principal, deciding upon content for professional development, and the modes of transaction of such professional development programmes. Hence the researcher has reviewed the related literature to get an outline for development of the e-Learning program to enhance the professional competencies of school principals. The findings and detailed description of the reviewed studies is presented in the next chapter.