

**A CRITICAL STUDY OF THE ROLE PLAYED BY *THE SCERT* TOWARDS QUALITATIVE IMPROVEMENT OF SCHOOL EDUCATION IN MEGHALAYA**

**Thesis Submitted for the Degree of  
DOCTOR OF PHILOSOPHY IN EDUCATION**

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To



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School of Humanities and Education  
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I certify that the thesis entitled **A Critical Study of the Role Played by the SCERT towards Qualitative Improvement of School Education in Meghalaya**, submitted by **Miss Creamlimon Nongbri**, for the **Degree of Doctor of Philosophy** of the North-Eastern Hill University, Shillong, embodies the record of original investigation carried out by her. She has been duly registered and the thesis presented is worthy of being considered for the award of the Ph.D. Degree.

This work has not been submitted for any Degree of any other University.

Dated, Shillong,  
the 18 June, 1996

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June 19<sup>th</sup>, 1996

  
CREAMLIMON NONGBRI

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**Chapter-I**

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**INTRODUCTION**

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## 1.0 The Context

The role of education as the most important factor in the development of a nation is universally accepted. Therefore, all developing countries accord high priority to educational development including the quality aspect so that they produce the right kind of personnel they need. The quality of education as we know, largely depends upon the quality of teachers. It is being realised that the existing education and training of teachers imparted in teacher education institutions has certain limitations.<sup>1</sup> With the explosion of knowledge in the present day world, there is a need for continuous updating of the general knowledge level of teachers who may have undergone training earlier. It does, therefore, seem necessary to equip teachers with such knowledge and skills as would stand well for his/her professional life. Hence, the need of in-service training and a continuous process of education beginning with the pre-service training or preparation and continuing it throughout the teacher's career.

Along with the continuous process of preparing the teachers, there is a need for self-motivation of teachers for

- 
1. Gowda, A.C.D., Inservice Education of Secondary School Teachers, The Fourth Indian Year Book of Education, Secondary Education, NCERT, The Publication Unit, 1985, New Delhi, p.417.

professional growth.<sup>1</sup> This requires developing a new kind of relationship with the learners providing them the freedom to raise questions and creating a learning environment without restriction. An indicator of the success of a teacher could be the extent to which he is able to inculcate in his students the desire to raise questions, the answer to which the teacher has to search and provide.

Research requires an attitude of mind which is favourable to finding out truth by increasing search for it and this can only be created and promoted by conscious effort. Mere textbook instruction or teaching without active student participation will not help in promoting the learning environment. It requires introducing our teacher to a large number of books on the same theme and asking one to search out points or viewpoints. This work should form part of his search strategy to produce quality material for the benefit of his students. The relation between research and educational reconstruction is not yet clear to most of our teachers. Pillai<sup>2</sup> has had experience of learned colleagues doubting whether anything tangible is achieved by research in

- 
1. Sharma, A.K. & L.C.Singh, NCTE Bulletin In-service Education, NCTE Secretariat, DTESE & ES, NCERT, New Delhi-16, Sept-Dec. 1989, Vol.1 No.2&3.
  2. Pillai, N.P., The Training of Research Workers, Journal of Educational Research and Extension, Vol.III, No.4, April 1967.

education. In his research questionnaire addressed to training college teachers, some replied that research is unnecessary while almost all the others said that even if its necessity was conceded, they themselves would have very little of it. It showed that these teachers are not unaware of the facts that all the reports on education published from time to time stress the role of educational research but they have not been convinced of the impact of research on the improvement of educational programmes in our country. Few among them have had the opportunity to read research reports or articles in educational journals for these are not usually read by any unless they are required for courses at the University level. Very few have seen experiments in education being organised systematically with the purpose of testing new educational ideas, programmes or reforms being introduced to them. The dearth of research output in education and the poor quality of output which is occasionally forthcoming from the university add weight to the opinions of those who consider educational research, a meaningless exercise.<sup>1</sup>

If this problem is to change, educational research is to be taken up seriously. The quality of research has to be improved considerably and results which are worthwhile will

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1. Kaul, G.N., Inservice Education, Education of Teachers in India, Vol.I, S.N.Mukherjee (ed.), S.Chand & Co., New Delhi, 1968.

have to be published and made available for being pressed into service by educators and educational administrators. Teachers at all levels should be initiated into the techniques of research as a part of their professional preparation at least to the extent of enabling them to appreciate the bearing of educational research on programmes of education and understand the language of communications used by research workers. But teachers, on their own, will not be able to cope with the daily work expected of them unless they are acquainted with these developments to further their professional growth.

It is necessary also to prepare our teachers to respond sincerely to the trust reposed in them to educate our children. In order to achieve this objective, we need substantial improvement and change in management techniques and organisational procedure as applicable to teacher's work.<sup>1</sup> A fundamental point in this regard is to create an environment which promotes teachers' growth and development. But to make this possible and to enable them to deal with the growing knowledge one has to think of a variety of sources and materials - the curriculum, the textbooks, teacher's handbooks, student's workbooks, and in order to develop

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1. Singh, R.P., Elementary Teacher Education - New Directions, NCTE Bulletin, NCTE Secretariat, DTESE & Es, NCERT, New Delhi-16, Vol.II No.2&3, Jun.-Sept. 1990.

these, one has to plan for workshops in which the teachers shall be active participants. This is not the whole process. The curriculum, textbook, guidebook and student's workbook need to be evaluated from time to time. There are no theory that can be accepted without thorough investigation. This continuous process of evaluation implies the long and arduous process of research in learning and teaching processes, and these have to reach out to the teacher in the field and to make them feel so deeply involved in the growing process of education.

What then are the ends of education? What are its means? These are the questions we seek the answers in the discussion that follows.

There have been global concerns about giving education a fresh impulse and UNESCO has made systematic efforts in this direction. In the first years of its working, a thrust was generally in literacy activities encouraged by the importance given to mass literacy by the United Nations and various international organisations such as the World Bank and UNICEF. UNESCO organised many regional level meetings, symposia and seminars involving literacy leaders and experts from the member states, thus providing opportunity to discuss and find solutions to basic problems in the literacy campaigns in their own countries. Secondly, teacher education and training of educational personnel has been the ongoing

tasks of the UNESCO and the most important areas of educational innovation for development. This has been articulated in the programmes of the Asia and Pacific Programme of Educational Innovation for Development (APEID) that coordinates the work of institutions in the member states through UNESCO Regional Offices.<sup>1</sup> The programmes are aimed at helping educational systems measure upto the demands of fast changing societies and is oriented towards development. UNESCO member states are encouraged to consider education as a human right, a means of individual fulfillment and also to see in it an essential tool for building of their societies.<sup>2</sup> As education systems in the participating member states are undergoing changes and even more reorientation is being planned for the future, the focus activities of the APEID has shifted to professional training including support service and distance education.

At the national level also, education has been receiving somewhat greater attention especially in independent India as can be inferred from the provision made in her Constitution and from the actions subsequently taken  
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1. Bulletin of the UNESCO Regional Office for Education in Asia and the Pacific, UNESCO in Asia and the Pacific, Documentation Centre of the UNESCO, Bangkok, p.59.
2. Aggarwal, J.C. & S.P.Agrawal, Role of UNESCO in Education, Vikas Publishing Houses Pvt. Ltd., New Delhi-2, 1982, p.19.

to translate the provisions into action. There is a ministry at the Centre, to provide leadership to the State Governments in educational matters. The State Governments are fully autonomous in educational matters except in respect of educational development programme which grant-in-aid is received from the Centre for various purposes.

Consequent upon the implementation of the constitutional provision such as Article 275 for the educational development of tribal areas, Meghalaya has witnessed phenomenal growth of educational institutions at various levels. This was made possible by the liberal policy of the Government of India in assisting the states in North Eastern India.

To have a close look at the expansion of the educational growth and expansion of the educational institutions in the State of Meghalaya a brief introduction of the history of education in the State before the attainment of the statehood may have to be traced and described.

### **1.1. A Brief History of Education in the State**

Long before formal education was institutionally introduced in Shillong and Cherra, the Khasis were exposed to orthography and some kind of ritualistic and technical education could be identified in the socio-economic structure

of the Khasi society throughout the Khasi and Jaintia Hills<sup>1</sup>. The Khasis had an elaborate and methodical system of educating the juniors not only in religious rites and ceremonies but also in social customs and manners, besides the non-formal technical education imparted to the workers in the iron industry complexes that existed in most part of the State.

These formal and non-formal agencies went a long way to create a sound intellectual base on which the structure of formal education was built up in cherra first and then in Shillong.

It was only with the coming of the missionaries that formal education took its roots in the state. In 1833, the Serampore Baptist Mission<sup>2</sup> was set up in Khasi Hills at Cherrapunjee. This school, however, did not last long. The real start was made when Thomas Jones and his wife of the Welsh Mission arrived in 1941 and published various books in Khasi which really served the purpose of the children and the people in general. The mission was strengthened under the leadership of Rev. William Lewis and his wife who came in

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1. Gupta, N.D., Education in Shillong - A Profile, Shillong Centenary Celebration, A Souvenir, 1974.
  2. Directorate of Public Instruction, Meghalaya, Historical Background of Education, Education Commission, Meghalaya, 1970.

1843 and education spread all over Khasi and Jaintia Hills. In the Garo Hills, the educational activities were taken up by the American Baptist Missionaries whose centre of operation was placed upon the Garo Baptist Convention which maintained the schools in the Garo Hills.

After independence the education was under the State of Assam as the area comprising the present Meghalaya was part of Assam. The administration of education in the area was looked after by an Assistant Inspector of Schools posted at Shillong. This officer was working as the Inspector of Schools for Upper Assam circle with headquarters at Jorhat (Assam). The Assistant Inspector, Shillong, was assisted by two Inspecting Fundits in his functions relating to supervision of schools<sup>1</sup> The Education Department of Meghalaya State emerged out of the parent Education Department of the Government of Assam.

At the time of formation of Meghalaya State in 1970 a Composite Department of Health, Social Welfare, Labour and Education known as Social Service Department under one Secretary came into existence. Education was later separated from health and labour. The independent Department of

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1. B.K. Nath, Education in Assam, NCERT, Office of the Field Adviser, Shillong, Assam 1971.

Education dealt with Youth Services, Social Welfare, Sports and Public Relations.<sup>1</sup>

The Directorate of Public Instruction of Meghalaya was established with the separation of the Department of Social Service having jurisdiction over the whole state of Meghalaya excluding Shillong Municipality areas. Subsequently, the educational administration of the entire state was transferred to the Directorate when Meghalaya became a full-fledged State in 1972.

A background of the State and the working of the education system in the State is worth mentioning in brief for better understanding of the working of the system.

## 1.2. Meghalaya : An Overview

Meghalaya, *the abode of the clouds* carved out of Assam with a total area of 22,429 sq. km. is a land-locked territory sharing borders with Assam in the North and the East and with Bangladesh in the South and the West. The original composite districts of United Khasi and Jaintia Hills and the Garo Hills have now been divided into 7 districts, namely East Khasi Hills, West Khasi Hills, Jaintia

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1. NIEPA, Educational Administration in Meghalaya - A Survey Report, NIEPA, New Delhi, p.11, 1980.

Hills, East Garo Hills, West Garo Hills, South Garo Hills and Ri Bhoi Districts.<sup>1</sup>

The total population of the State as per 1991 Census (Provisional) is 17,74,778 as against 13,25,819 in 1981 indicating a rise of 32.86 per cent over the population of 1981. The district-wise break-up of area and population<sup>2</sup> is given below :

### 1.1 : District-Wise Population of the State

Sl. No.	District	Area in sq. km.	Population
1.	East Khasi Hills	2,748	5,37,906
2.	Ri Bhoi District	2,448	1,27,312
3.	West Khasi Hills	5,247	2,20,157
4.	East Garo Hills	2,603	1,88,830
5.	West Garo Hills	3,714	4,03,027
6.	South Garo Hills	1,850	77,073
7.	Jaintia Hills	3,819	2,20,473

Typically, the native population of the State consists of the Khasi, Jaintia and Garo tribes who are simple and

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1. Directorate of Information and Public Relations, Meghalaya at a Glance, 1994, DIPR, Government of Meghalaya.
  2. Forestry in Meghalaya - An Overview, Directorate of Forest, Meghalaya, Shillong, 1995.

peace-loving people but today it has a mixed ethnic population consisting of tribals and non-tribals who follow a variety of religious beliefs and speak several languages.

The official language of the State is English. The literacy percentage of the State according to the 1991 census<sup>1</sup> is 48.26 per cent in the ratio of 44.78 per cent female and 51.57 per cent male which stood lower than the National average of 52.11 per cent. Considering the 1981-91 decade, it is found a small but perceptible increase in the rate of literacy from 42.22 to 48.26 per cent only.

The literacy percentage of the State reflects the working of the education system in the State where one of the main problems of the school education is the incidence of students dropping out of the school system. According to the VIth All-India Educational Survey 1993 (Provisional), 62.6 per cent of students enrolled in the formal school dropped out between Classes-I and IV and 81.8 per cent dropped out between Classes-I to VIII. Many of these relapsed to illiteracy.<sup>2</sup>

Further there are a large number of villages not covered under formal school system due to small population sizes. The following table shows the literacy pattern of the -----

1. Provisional Census 1991, Government of India.
2. Programme of Action 1995, Department of Education, Government of Meghalaya.

population by district after leaving children below 7 years of age.<sup>1</sup>

### 1.2 : District-Wise Literacy Pattern in the State

Sl. No.	Name of District	No. of Illiterate Persons		
		Rural	Urban	Total
1	East Khasi Hills	1,22,609	31,793	1,54,402
2	West Khasi Hills	78,021	3,006	81,027
3	Jaintia Hills	1,04,772	3,027	1,07,799
4	East Garo Hills	71,707	2,874	80,581
5	West Garo Hills	1,81,346	7,908	1,92,254
6	South Garo Hills	32,776	1,255	34,034
7	Ri Bhoi District	58,743	-	58,743

The table above shows that this problem of illiteracy poses a big challenge for the government though there is a long and golden tradition of private agencies running schools and helping in the expansion of education. These became the pace-setter schools in the field of education and developed healthy competition resulting in quality. Along with the efforts of the private agencies, the government also opened

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1. Ibid.

schools from time to time which resulted in the expansion of education.

### **1.3. The Educational Structure and Pattern in the State**

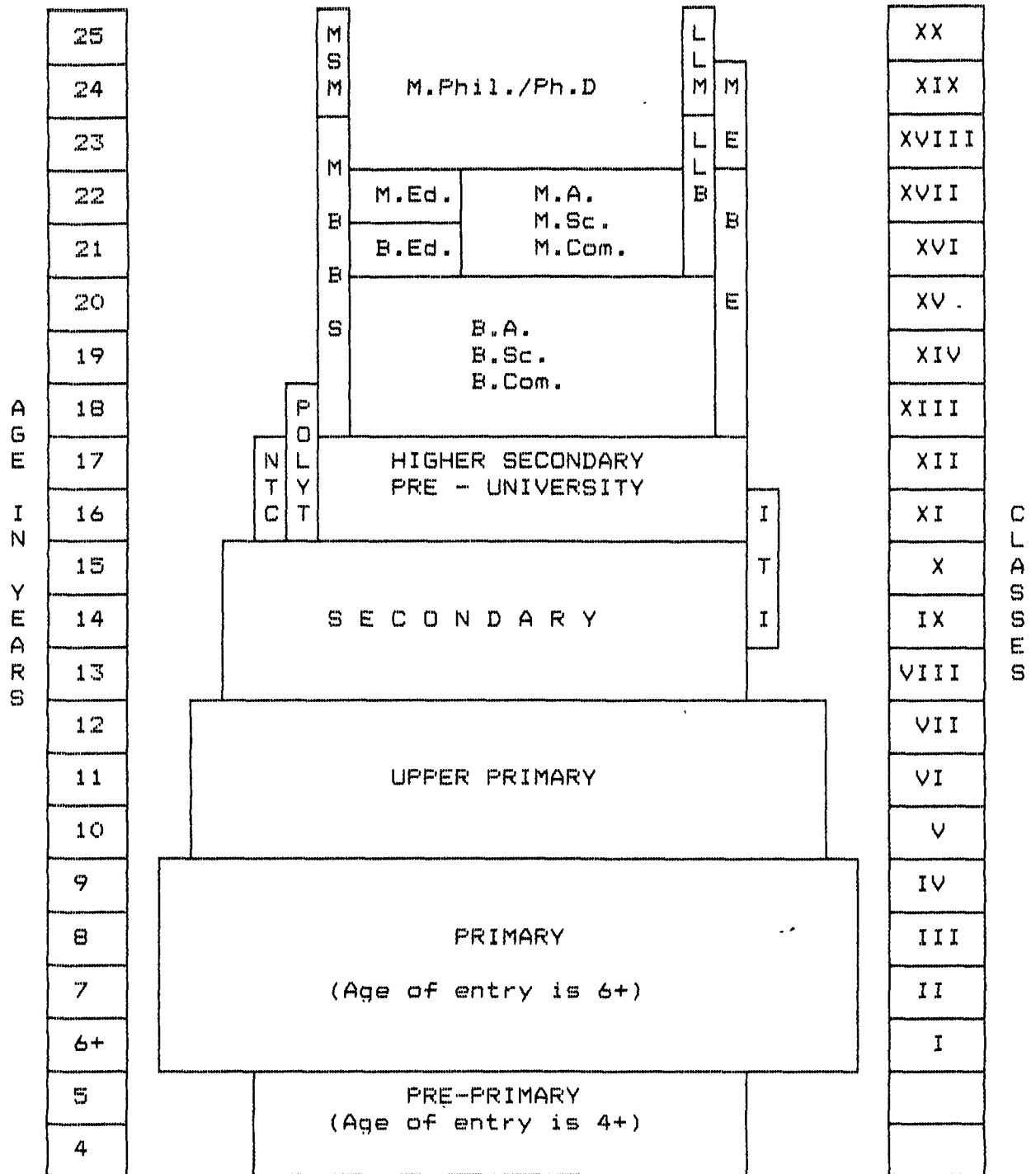
The Education Department, Government of Meghalaya has very recently announced the new structure of school education in the State as per the Government Notification No.EDN.167/89/47 dt. 23rd March 1990,<sup>1</sup> and its implementation is being taken up. The educational ladder of the State is presented on the next page.

The above figure indicates that the age of admission for formal education in Class-I is 6+. The primary stage comprises of classes-I, II, III and IV with attached pre-primary section for the 4 to 5 years age-group. Upper Primary stage of three classes-V, VI and VII generally for the age-group 10 to 12 years, Secondary School comprises of classes-VIII, IX and X (13 to 15 years) and Higher Secondary School comprises of classes-XI and XII (16 to 17 years).

After passing Upper Primary examination, the student becomes eligible for admission to an Industrial Training Institute or general education secondary schools. After passing Secondary school stage, student enters the higher secondary school or Pre-University course or Polytechnic. After Pre-University, the student becomes eligible for Three  
-----

1. Education Department notification dated 23rd March, 1990, Government of Meghalaya, Shillong.

**Figure-1**  
**MEGHALAYA**  
**EDUCATIONAL LADDER**



Note: 1. NTC = NTC/JBT; 2. POLYT = POLYTECHNIC; 3. MSM = MS/MD



Years Degree Course or for a professional course in areas like Medicine, Engineering, Agriculture, etc. The state has made provision for instruction in professional courses like Law and Teacher education besides post-graduate and research level studies in different disciplines. The salient features of different stages of education in the State are described below.

### Elementary Education

Before the introduction of the restructured pattern of education in the State, Primary education consisted of five year schooling classes (A-B, I-III) and the responsibility of management rested with the District Councils of the State except in the Shillong Municipality. It may be interesting to mention that prior to 1958, (before Meghalaya was created) the management and control of Primary Education in the autonomous districts fell under the purview of the respective district councils as provided in Para 6 of the Sixth Schedule of the Constitution of India. However, the State Government (then Assam) at the request of respective district councils had been managing primary education in the hills. In the year 1960, a decision was taken to transfer primary education to

the control of the District Councils<sup>1</sup>. Hence all the primary and junior Basic Schools in Khasi and Jaintia Hills (excepting those located within Shillong Municipality Area) were transferred to District Councils of Khasi and Jaintia Hills with effect from April 1962. Since then the primary education was under the District Councils. The State extended necessary academic and supervising assistance and the entire cost of maintenance and expansion of primary schools along with necessary equipments and furniture was borne by the State.<sup>2</sup>

But when there was discontentment on the part of the primary school teachers due to mismanagement of schools by the District Council once again, the government took over and in accordance with the Act passed by the Meghalaya Legislative Assembly known as The Meghalaya (taking over of District Council Lower Primary Schools) Act 1993<sup>3</sup>. Under the provision of the Act, the entire control of Primary Schools came under the State government thereby ending the decade old

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1. Educational Administration in Meghalaya - A Survey Report, NIEPA, 17-B Sri Aurobindo Marg, New Delhi-16, 1980.
  2. Education Meghalaya '76, Department of Education, Youth and Welfare and Sports, Meghalaya, p.8.
  3. Programme of Action 1995, Department of Education, Government of Meghalaya, Shillong, 1995.

uncertainty of the problem of administration of the primary school in the State.

The Government of India announced the National Policy on Education in 1986 and its Programme of Action (POA) and made universalisation of Elementary Education as the main activity to be taken up by all States in the country. As a follow-up, the Meghalaya State government has also made universalisation the main policy item for achieving the constitutional requirement of providing free and compulsory education to all children till the age of 14 years. Towards this end, a White Paper on Education<sup>1</sup> was prepared which apart from laying down the guidelines for administration and regulation of the Primary education in the State also reiterated some of the innovations envisaged in the National Policy of Education (NPE) 1986.

Though the State did not prepare any Programme of Action of its own in the State at that time to implement the above policies, yet the Government took the following action.

The system of Education in the State was restructured in 1988 after the State adopted the National Pattern of Education as envisaged in the NPE 1986. According to the restructured system, the Elementary Education comprises of two levels — the primary comprising of Classes-I to IV and

1. White Paper on Education, Government of Meghalaya, Shillong, 1988.

Upper Primary level comprises of Classes-V to VII. It has not been possible to adapt the National Pattern on its totality then, due to certain practical problems inherent in the system itself.

Under the new structure, the pre-primary stage is also attached to the Primary schools. According to the statistics<sup>1</sup> (Provisional Statistics of Sixth All-India Educational Survey 1993) all the primary schools in the State has pre-primary sections. In fact, the available statistics indicates that the children in the pre=primary section accounts for more than half of the total number of children in a primary school.

The medium of instruction at the primary state is mainly Khasi and Garo for Khasi and Garo speaking communities respectively. Besides, the linguistic minorities of the State are provided all the facilities for imparting instruction through their mother tongue like Assamese, Bengali, Nepali, Hindi, Mizo and the like.

The medium of instruction in the State at the Upper Primary stage is English.

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1. Sixth All-India Educational Survey, Provisional Statistics, Publication Department, NCERT, New Delhi-16 (1996).

## Secondary Education

Under the restructured system of Education in the State as notified by the government in 1990, the Secondary Stage of Education comprises of classes-VIII, IX and X. Before the restructuring of the systems at the secondary stage, the system, at the secondary stage, the schooling extends to seven years and two types of schools are in vogue: Middle Schools and High Schools. Middle Schools provide instruction for three years (Classes IV to VI) and High School for four years Classes-VII to X. Hence inspite of restructuring of the system certain schools, have to pull on with the structure which existed at the time of restructuring. Therefore, we have in the State today the Secondary Schools which conducted Classes-VII or VIII to Class-X and also a substantial number of amalgamated secondary schools which conduct classes from IV to X.

One of the peculiarities of secondary education system in the State is the dominance of private management in educational institutions. Today 94.7 per cent<sup>1</sup> of the Secondary schools are under private management. Deficit schools are those private schools which receive the deficit system of grant-in-aid, and the venture schools are covered

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1. Programme of Action 1995, Department of Education, Government of Meghalaya, Shillong, p.10.

by a system of adhoc grants-in-aid or are unaided venture schools.

### Higher Secondary

So long, the +2 stage in the State has been conducted in the colleges in the form of two-year Pre-University courses. There are at present 28 colleges in the State which conduct the +2 stage of education or Pre-University courses all affiliated to the North-Eastern Hill University. Out of these only 2 are government colleges and the remaining are deficit institutions or purely private managed institutions. Along with the NEHU, the State government has implemented higher secondary stage of education <sup>in</sup> the State. The Meghalaya Board of School Education has taken over the +2 stage from the University in 1995.<sup>1</sup> Though the Government has taken over the +2 stage, the complete take over is yet to take place. The examination for class-XI for 1995 was conducted internally by the colleges.

In pursuance of the policy decision taken on restructuring of the system, 34 progressive secondary schools in 1990 both government and private owned institutions came forward to open Higher Secondary classes but only 17 of them have introduced and conducted the classes with effect from -----

1. Programme of Action 1995, Department of Education, Government of Meghalaya.

the academic year 1994. They have adopted the present syllabi of the Pre-University courses prescribed by the NEHU.

### Higher Education

The Higher Education in the State consists of the following :

a) University : The North-Eastern Hill University is a central university which conducts different academic courses through the different academic departments. All colleges in the State are affiliated to it.

b) Colleges : There are 28 colleges in the State which have been affiliated to the University. These consist of (i) Government colleges, (ii) deficit colleges and (iii) adhoc aided colleges.

i) There are two government colleges in the State. All the teachers and non-teaching staff of these colleges are Government servants.

ii) Deficit colleges - These are managed and ran by private organisation through duly constituted governing bodies. These colleges are covered under the scheme of deficit grant-in-aid of the government.

iii) Adhoc aided colleges are also private colleges like deficit colleges. They are covered under the scheme of

ad hoc maintenance grant-in-aid<sup>1</sup> under which the government extends financial assistance by way of ad hoc grant-in-aid upto 75 per cent<sup>2</sup> of approved financial maintenance requirement of the concerned college.

The teachers of the government colleges and those of the deficit colleges are entitled to the revised UGC scale of pay subject to requisite norm of the UGC.

So far, the academic courses are concerned, the NEHU is the regulatory authority. At present, the University prescribed a two-year P.U. courses followed by 3 year-degree course with major in various subjects.

Besides the Degree colleges in Science, Arts and Commerce, there are other colleges like the B.Ed. colleges and Law college which are affiliated to NEHU. These colleges conduct professional courses in Education and Law respectively.

#### **1.4. The Size of the System**

The educational institutions in Meghalaya can be categorised as follows :

1. University
2. Arts, Commerce and Science Colleges

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1. Programme of Action 1995, Department of Education, Government of Meghalaya.
  2. Ibid.

3. Post-Graduate Training College/Law College
4. Elementary Teachers' Training Institute
5. Polytechnic
6. Higher Secondary
7. Secondary
8. Upper Primary Schools
9. Lower Primary Schools.

A comparison of the number of institutions, enrolment and number of teachers at the school stage between the V<sup>1</sup> and VI<sup>2</sup> All-Educational Surveys is shown below :

### 1.3 Enrolment Pattern between the Fifth and Sixth Surveys

Sl. No.	Type of Institution	No. of Schools		No. of Teachers		Enrolment	
		V	VI	V	VI	V	VI
1	Higher Secondary	-	9	-	187	-	12,766 (XI-XII)
2	Secondary	288	392	3131	4643	44,738 (VII-X)	27,357 (IX-X)
3	Upper Primary	665	816	3075	3899	64,435 (IV-VI)	73,546 (VI-VII)
4	Lower Primary	3692	4099	6871	8616	2,54,502 (A-III)	2,77,919 (I-V)

1. Fifth All-India Educational Survey - Selected Statistics Meghalaya, Directorate of Public Instruction, Meghalaya, Shillong, 1989.
2. Sixth All-India Educational Survey - Provisional Statistics, NCERT, Sri Aurobindo Marg, New Delhi-16, 1993.

The table above shows the expansion and growth of educational system in the State. A close scrutiny of the trend in educational growth at the elementary and secondary stage shows that during the period between the Fifth and the Sixth All-India Surveys, i.e. from 1986 to 1993, the number of Primary Schools increased from 3692 to 4099, i.e. 407 new schools were established or 11 per cent increase. In respect of Upper Primary Schools, the number increased from 655 to 819 only during the period which is about 23.2 per cent increase. At the secondary stage the increase of secondary schools goes up from 288 to 392 registers an increase of 104 or 36.1 per cent.

The number of teachers also increased by 1745 in the primary stage, 824 at the upper primary stage, 1512 at the secondary stage during the period between the Fifth and the Sixth All-India Educational Surveys.

The increase of enrolment could not be compared because of the restructuring of the classes in the adoption of the State of the National Pattern of Education.

The expansion of the educational system demands/calls for the strong administrative machinery in the State. But what is more important is to see that the expansion of the education facilities does not affect the quality aspect of

the system. It is thus felt necessary to present the administrative machinery in the State.

### **1.5. The Administrative Machinery**

The administration of education in the State is associated with Senior Officers of the Education Department.

The administrative machinery comprises of :

1. The Secretariat level
2. The Directorate level, and
3. The Inspectorate or field set up.

#### Secretariat Level

The State Education Department is headed by the Minister and at the Secretariat is headed by the Education Commissioner and Secretary who is a Senior member of the Indian Administrative Service. He is assisted by the Director of Public Instruction and Under-Secretaries. They have the necessary supporting staff. The Secretariat set-up is concerned with policy decision and controls the Directorate and Field set up. The coordination with other department is also done at this level.

#### The Directorate Level

The Director of Public Instruction (DPI) is the chief education administrator of the State at this level. He is

assisted by the Additional Directors (who are looking after general education, schools, planning and budget, technical education), Director, SCERT, Joint Directors of Public Instruction incharge of planning and technical education, schools, colleges and the Deputy Directors who assist the DPI and other officers. The Directorate has many other officers incharge of different branches. The Directorate is also responsible for spending the funds and grants as approved by the State Government.

#### Administration at the Field Level

The administration of education at the Inspectorate level is incharged by the Inspector of Schools who is supposed to be the principal education officer in the District, and administration of Secondary and Higher Secondary Schools including the teachers training institution located in the district. He is assisted by the Assistant Inspector of Schools. The Deputy Inspector of Schools in each sub-division, though under the administrative control of the Inspector of Schools, function almost independently while administering the subject of Primary and Upper Primary level of education in their respective sub-division. The Deputy Inspector of Schools is assisted by the Sub-Inspector of Schools in each sub-division. At present, there are three

offices of the Inspector of Schools, East Khasi, Jaintia Hills and West Garo Hills. However, the Assistant Inspector of Schools, West Khasi Hills, hold independent charge of High Schools in that area. The offices of the Deputy Inspectors of Schools are located in each district headquarters and sub-divisions. At present there are 15 offices of the Deputy Inspector of Schools in the State.

The organograms showing the existing administrative set up at different levels are shown in the next pages.

Figure-2

MEGHALAYA EDUCATIONAL ADMINISTRATIVE SET-UP  
AT THE SECRETARIAT LEVEL

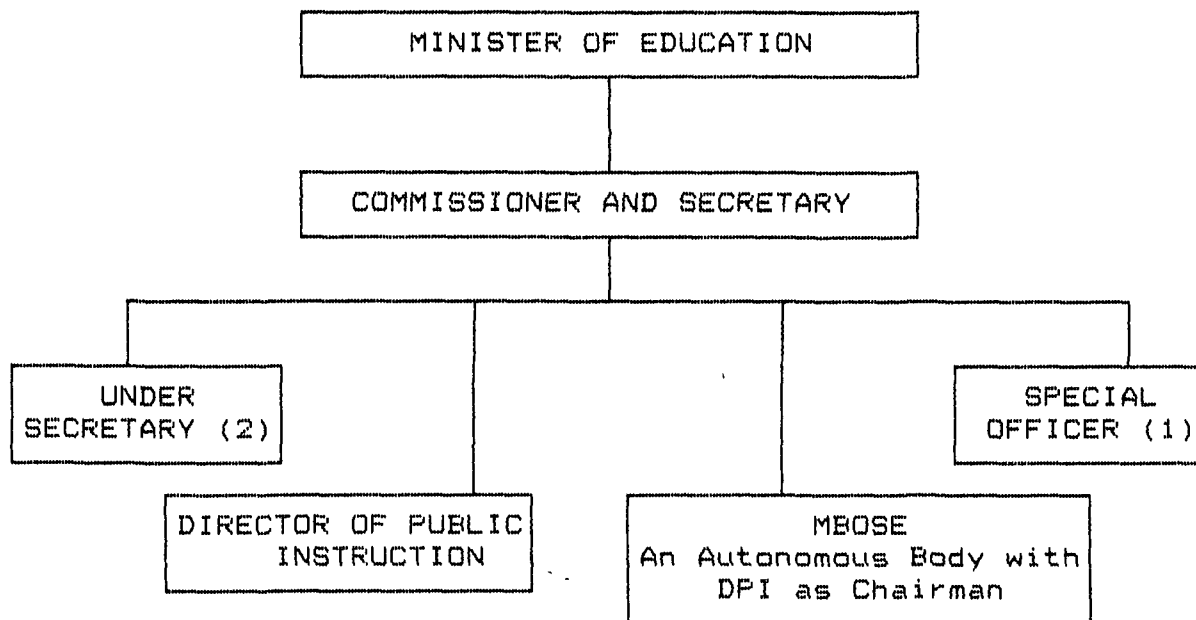


Figure-3

MEGHALAYA EDUCATIONAL ADMINISTRATIVE SET-UP  
AT THE DIRECTORATE LEVEL

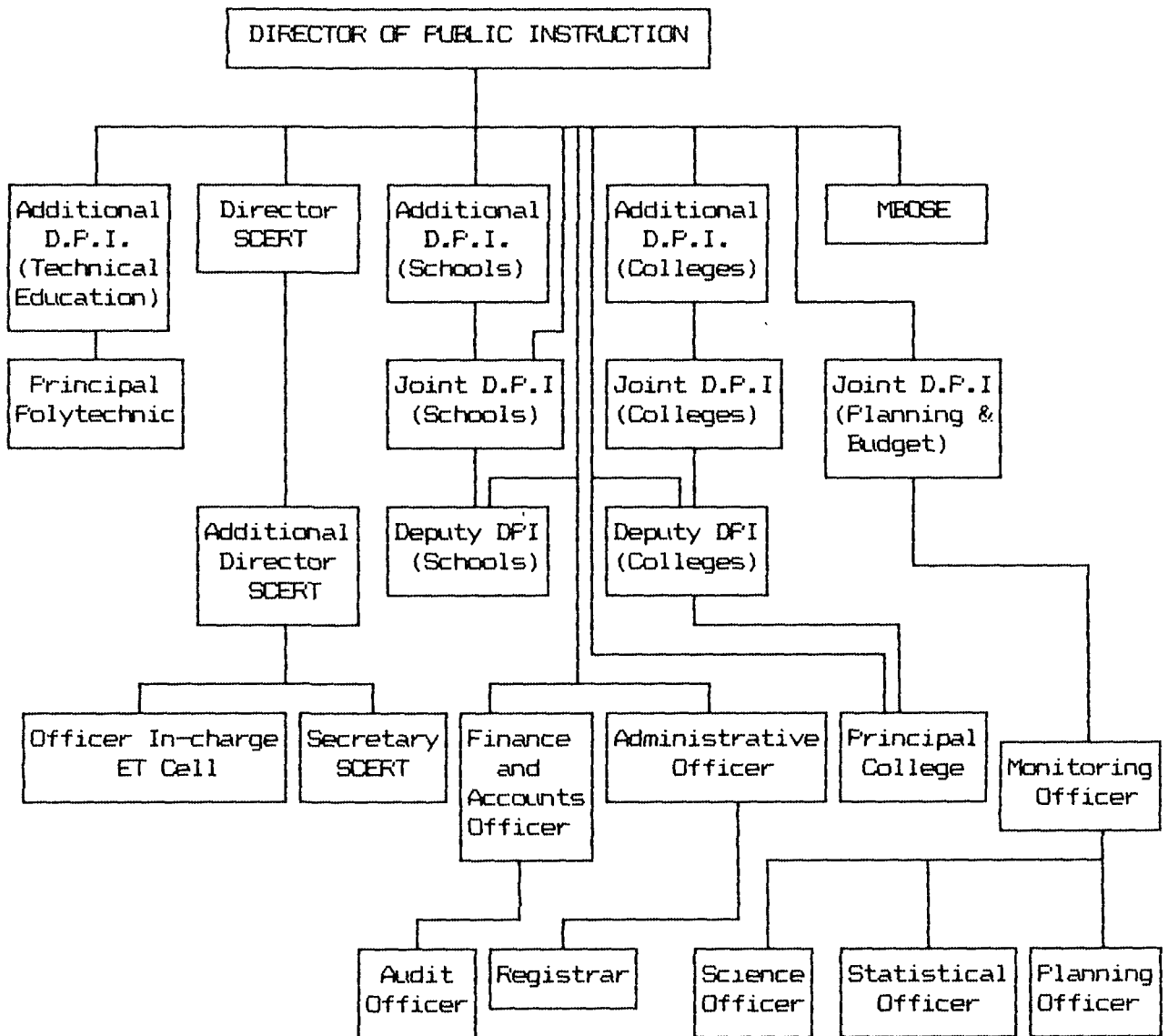
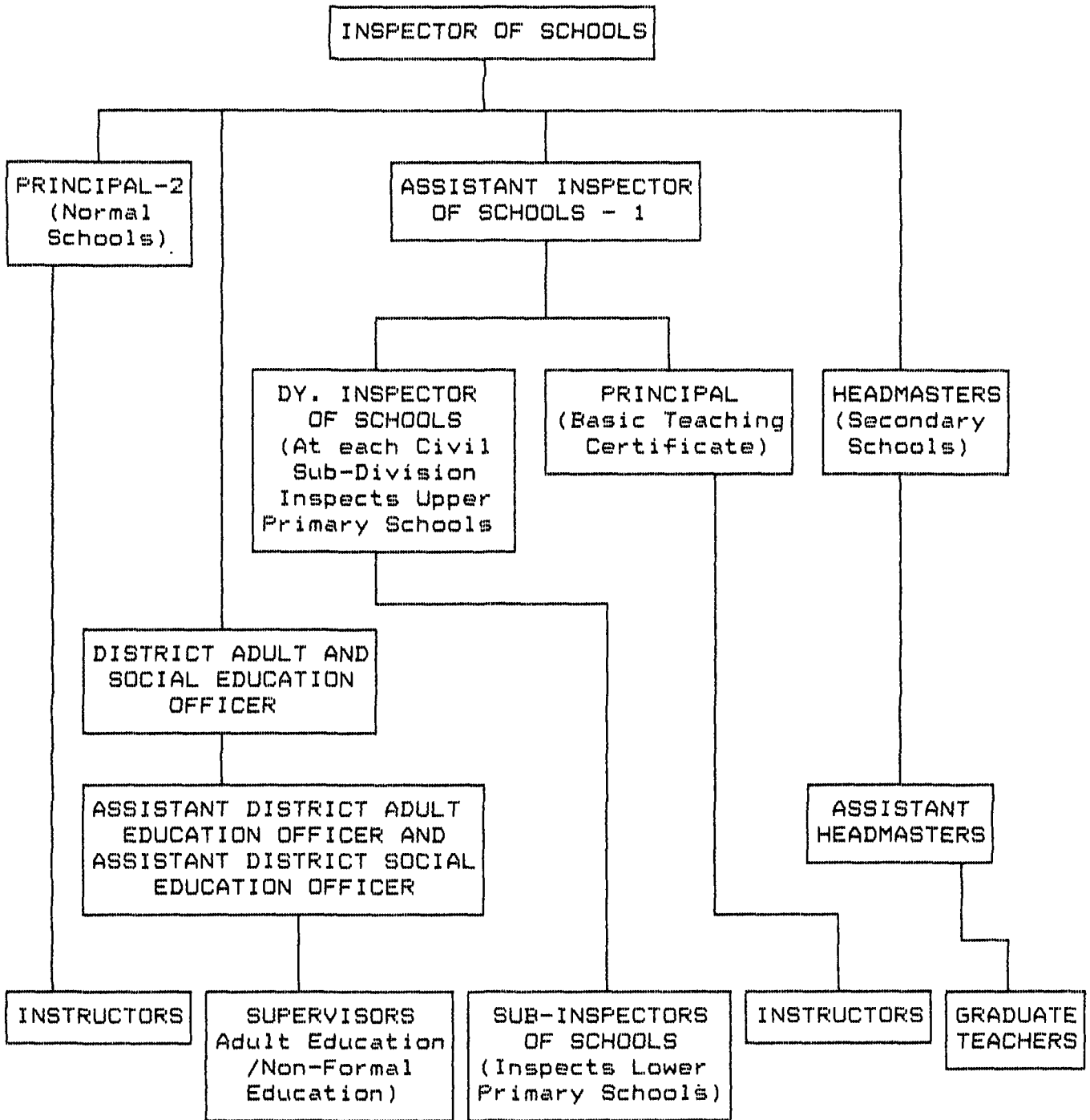


Figure-4

MEGHALAYA

**ORGANOGRAM AT INSPECTORATE LEVEL**



The organogram at the Directorate level suggests that the SCERT is one of the branches in the Directorate of Public Instruction. It is headed by the Director (SCERT) who is in the rank of Additional Director of Public Instruction. He is assisted by the Additional Director (SCERT) and Secretary, SCERT (for administration). Below them are the lecturers, programme-cum-script writers, counsellors and translators. The SCERT,<sup>1</sup> being the academic wing of the Directorate sees to qualitative aspect of School Education in the State.

#### **1.6 Need of the Study**

Established in October 4, 1976, as the academic wing in the Directorate of Public Instruction, the SCERT is almost completing two decades of its existence. Since its establishment in 1976, the SCERT took up the challenge of revolutionising the school system through its various programmes and activities and improved the quality of school education in the State. These programmes and activities were conducted based on the investigations done initially by the SCERT on the problems of school education. Workshops, seminars were organised for identification of problems actually faced by the concerns in the fields and the main

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1. Directorate of Public Instruction, Education Meghalaya, Government of Meghalaya, 1976.

activities of SCERT have been on research, curriculum development and trainings and extensions. The contribution made by SCERT has been very significant and has improved the quality of school education to a great extent.

While there is no research activity conducted so far on the working of the SCERT, inside and outside the institution, it is strongly felt that an evaluation of its work, is highly necessary to find out the extent these programmes were successfully carried out, in its 19 years of its existence. The present study is an attempt to find out how this important institution came into the present form and how the programmes and activities of the SCERT influenced the system of education in the State. This will give an insight into the past and the present programmes carried out by the Council and will also bring to light the present need of the institution. The present study was taken up with a view to highlight the strengths and weaknesses of the programmes of the SCERT as perceived by the investigator with the help of the respondents.

#### **1.7. Statement of the Problem**

The problem of the present study has been stated as *A Critical Study of the Role Played by the SCERT towards the Qualitative Improvement of School Education in Meghalaya.*

### **1.8. Definition of the Term**

SCERT — The term SCERT in this study, refers to the State Council of Educational Research and Training, Meghalaya, an academic wing of the Directorate of Public Instruction, Meghalaya.

Quality — The Webster Dictionary describes it amongst other things as 'a degree of excellence and superiority in kind'. In reality, quality means different things to different people. It is a relative concept. Thus in the field of education while discussing quality the focus of attention may be on the facilities provided the teaching-learning process, the performance of students and the like.

The term as used in this study refers to the facilities/services provided for improvement of teaching-learning which in turn improves the students' performance.

Evaluation — The term used in the study refers to the assessment of performance which can be judged by the positive changes brought about in education in schools, classroom practices and teachers' attitude.

### **1.9. Scope of the Study**

The present study is a descriptive study as its major focus is to study and describe the growth and development of an institution including a preliminary probe into the effectiveness of its programme. Thus the study is designed

with a view to trace the origin and development of SCERT in the State. The study is also to find out the close coordination of SCERT with the department and in relation to other agencies like NCERT, UNICEF, NEHU, CIET, NEC, MBOSE, and the like. The relation of SCERT with other officers in the district level and the schools and teachers in particular who are the direct beneficiaries of the SCERT programmes.

The study is also aimed at surveying the different programmes and activities of the SCERT which include research activities, curriculum development, development of instructional materials and their dissemination to the users and the training and extension services. In the area of research activity, the investigator has tried to make a survey of the research activities done by the SCERT in the different aspects of school education. The investigator has also tried at evaluating the contribution made by way of application of research findings in the field of education.

The investigator has tried to find out the work of SCERT in the area of curriculum development and in the production of teaching-learning materials. Assessment of the curriculum has been done in the light of the National Core Curriculum and in comparison to the old syllabus that was existing in the State before the revision of the curriculum by the SCERT. Evaluation of Class-I and II instructional

materials at the primary stage is also aimed at, as part of the assessment.

In the area of trainings and extension the investigator has attempted to find out the different in-service training programmes conducted by the SCERT since its inception. The extent to which these trainings affected the system in general has been taken up in follow-up studies of some training programmes through responses of the main beneficiaries — the teachers. The follow-up study also included the district officers, teacher educators and headmasters/headmistresses of selected secondary schools who are directly involved in the training and extension services conducted by SCERT.

In addition, the problems faced by the academic officers of SCERT in the effective implementation of their programmes have also been investigated through interview with them.

#### **1.10. Objectives of the Study**

1. To trace the origin and development of SCERT in the State.

2. To survey the various action research activities undertaken by the SCERT and to assess their contributions on the education system of the State.

3. To assess the effect of the SCERT's work in the area of curriculum development and production of learning materials.

4. To study the various training programmes organised by the SCERT and to assess their effects on the education system in the State, and

5. To find out the problems faced by the SCERT in the implementations of its programmes in the State.

#### **1.11. Limitation of the Study**

The present study is subjected to many limitations. The following are some of them :

1. The main objective of the study besides surveying the work of SCERT is to assess the effect of the work done by the SCERT in the State with regard to research, curriculum development and training programmes. The assessment of research activities and curriculum development has been restricted to the conceptual and analytical level keeping the objective of education as the point of reference. The assessment of the training programmes was done by obtaining responses of field beneficiaries of the programmes on (i) In-service training in Science and Mathematics; (ii) Training-cum-workshop in Socially Useful Productive Work (SUPW) for upper primary teachers and (iii) Special Orientation Programme for Primary School teachers (SOPT).

2. The study was limited to a representative sample of beneficiaries identified by the investigator.

3. In administering the questionnaire, except in one programme, i.e. Training-cum-Workshop in SUPW for Upper Primary School teachers, physical visit was not possible. The questionnaires were mailed to the beneficiaries and only those questionnaires that were received were tabulated and interpreted.

## **Chapter—II**

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### **A REVIEW OF RELATED LITERATURE**

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The present chapter deals with a review of related studies and literature pertaining to the area of research undertaken by the investigator. The review is grouped into two main headings : i) Studies related to evaluation of the working and programmes of institutions like the SCERT and ii) Studies related to training, and curriculum development including their effectiveness and adoption in practice.

## **2.0. Introduction**

The post-independence period marks the beginning in the introduction of programmes of in-service education in content as well as methods of teaching undertaken from time to time by the State Departments of Education, Universities and teachers education institutions. Most of the programmes undertaken by these agencies were intended to meet the needs of specific target groups. These were coordinated, continuous and systematic effects made for providing continuous opportunities for the professional growth of teachers. The Secondary Education Commission 1952-53 focussed attention to the need for systematic organised programmes of in-service education for teachers. This is very well-reflected in its recommendation. "Increased efficiency of teachers will come through experience critically analysed and through individual

and group effort at improvement."<sup>1</sup> Among the activities recommended for teachers for this purpose were i) refresher course; 2) short in-service in special subjects; 3) practical training in workshops; 4) seminar and professional conferences. This recommendation of the Secondary Education Commission set in an era of short-term courses, seminars and workshops for teachers and thousand of such programmes were organised all over the country.

The recognition of the need for the continuous professional growth of teachers through in-service education programmes resulted in the setting up of the All-India Council for Secondary Education in 1955.<sup>2</sup> The organisational structure, the basic policies and the type of programmes and activities of this Council were enunciated at the two conferences held at Hyderabad and Srinagar during 1954 and 1955. The first problem confronting the Council was to set up an appropriate machinery which would facilitate the programme of in-service education. The choice fell obviously on the training colleges. The in-service education programme for teachers of Secondary schools was first started in 1954 by

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1. Government of India, Ministry of Education, Report of the Secondary Education Commission (1952-53), Reprint, New Delhi: The Manager of Publication, 1954.
  2. Saiyidain, K.G. et al., The Fourth Indian Year Book of Education, Secondary Education, NCERT, New Delhi, 1973.

setting up extension services departments in 23 secondary training colleges in the country.

There have been some changes in the set up for in-service education of teachers at the national level since 1959. The All-India Council for Secondary Education set up in 1955 as an autonomous body dealt not only with in-service education of teachers but also with many other problems of secondary education. In 1959, the Ministry of Education, Government of India, changed the Council into the Directorate of Extension Programmes for Secondary Education with an emphasis on in-service education and extension services. With the setting-up of the National Council of Educational Research and Training (NCERT) as an autonomous body in 1961, entrusted with the responsibility of training research and extension work in school education at the National level, the Directorate of Extension Programmes for Secondary Education came under this National Body and it continued to grow as one of its constituents. In 1969, the Department of Field Services was abolished on the recommendation of the Review Committee<sup>1</sup> and the extension work was transferred to the respective Departments of the NCERT.

An attempt was made in 1958 to make a systematic assessment of some of the extension service centres in the  
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1. Report of the Review Committee on Future Development of NCERT, New Delhi, Publication Unit, NCERT, 1969.

country. It was, however, in 1964-65 that a more comprehensive assessment of the centres was planned and carried out. An Assessment Team was set up for each State consisting of the Director of Public Instruction or his representatives, a representative from the then Directorate of Extension Programme for Secondary Education, a representative of the NCERT, a member of the Teachers' College Columbia University Team and one other educationist<sup>1</sup>. The Team visited the centre, observed its activities, met the college faculty, heads of associated schools, inspecting officers and others connected with the centre's work. On the basis of these observations and discussions, the team arrived at an assessment of the centres which was followed by suggestions for their improvement.

The assessment showed that the extension project has been one of the most successful efforts in the programme of educational reorganisation. With a limited investment of manpower and money, a rich harvest has been shown but the impact on the secondary schools and its teachers has been multifaceted. The project has roused the teacher to a sharper awareness of the need for change and his own role in bringing about that change. New ideas, techniques and resources have

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1. Gowda, A.C.D., In-service Education of Secondary School Teachers, The Fourth Indian Year Book of Education, Secondary Education, NCERT, New Delhi, 1973.

been made available in a manner never before experienced. An equally impressive result of the extension project is the fact that it has come to serve as a highly effective liaison between the Centre and the State and among the States themselves. The success of the extension project at the Secondary level has been so marked that it has resulted in the setting up of extension services departments in 45 primary training institutions. Besides some training colleges have also introduced extension activities in their programme on their own initiative.

The NCERT was set up in 1961 as an autonomous organisation under the Ministry of Education by amalgamating the various specific purpose institutions that the Ministry had set up earlier. The memorandum of Association of the Council indicates in broad terms the role that the Council is expected to play in the educational development of the country. The Memorandum lays down the primary function of the Council 'to assist and advise the Ministry of Education in the implementation of its policies and major programmes in the field of education particularly School education'.

The Memorandum also provides for periodic reviews of the organisation and functions of NCERT so as to make it more effective. There have been many reviews either of NCERT as a whole or of some of its parts/activities, the notable ones being the review by the Nag Chaudhuri Committee in 1968, the

Administrative Staff College of India (ASCI) in 1977 and Shri P. Sabanayagam (formerly Education Secretary) in 1979.<sup>1</sup>

While considering the annual plan proposals of the Ministry of Education in 1978, the Planning Commission suggested that the structure and programmes of NCERT should be critically reviewed by an independent committee with a view to highlighting the role which it should play in providing necessary academic and technical support to make school education functional and purposeful. All this came to be considered by the Public Accounts Committee in 1981 when it took up for examination various aspects of NCERT work. In its 48th Report, the Public Accounts Committee (Seventh Lok Sabha) made several recommendations about the work and progress of NCERT. The Committee drew the attention to some of the constraints and inhibiting factors that impede the proper functioning of the NCERT as a catalytic agent in the field of education despite the fact that its workings over the years had been subjected to a series of reviews. The Committee found that a number of important recommendations made in the reports have still not reached the important and critical stage of implementation. The Committee, therefore, suggested that a Task Force consisting of the representatives

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1. Task Force on NCERT - Report on Organisational Reforms, NCERT, Publication Department (Sh. C. Ramachandran, Secretary, NCERT, 1985, New Delhi 110 016.

of the Ministry, NCERT and some eminent educationists should be set up expeditiously to consider within a stipulated period of time the urgent problem of restructuring of the NCERT to restore to it dynamic, creative and nationally important role of effectively helping the national system of the country.

In pursuance of this recommendation the Government of India in the Ministry of Education set up a Task Force which submitted its report in 1985. The important work done by NCERT as reported are its important role in educational reconstruction through its programme of educational research, development, training, extensions, publication and dissemination of information beside others.

During the period under review new problems and new concerns surfaced. The Report of the Education Commission (1964-66) and the announcement of the National Policy of Education 1968 brought into the front the new directions for the work of NCERT as an apex academic body at the Centre and the State Institutes of Education (SIEs)/State Council of Educational Research and Training (SCERT) at the State level. The National Policy on Education 1986 revitalised the efforts of the earlier Education Commissions and policies. These are working for common 10+2 pattern of education, a school curriculum with stress in Science and Mathematics facilitating the adoption of three language formula and so

on. Subsequent developments included review of the school curriculum, introduction of work-based education (SUPW) and the use of mass media with special reference to Radio/TV for educational purposes and the substantial growth of school education and the rapid pace at which the content and curricular reforms were taking place, brought in their wake critical problems of teacher training and retraining. Thus, over the years there was emergence of new problems and the need for new solutions.

The National Policy on Education 1986, and its Programme of Action (POA) 1986<sup>1</sup> have also specified the need to upgrade/strengthen SCERTs/SIEs to meet the challenge of qualitative improvement of school education and teacher education. The Rammurti Committee set up to review the National Policy on Education (1990)<sup>2</sup> also stress that the structure should ensure adaptability and flexibility to take care of other qualitative improvement like redesigning of curriculum and methodology. It also recommended a critical evaluation and reorientation of teacher training programme in general.

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1. National Policy on Education 1986, Programme of Action, Government of India, Ministry of Human Resource Development, Department of Education, New Delhi, 1986.
  2. Towards an Enlightened and Humane Society, Ramamurti Review Committee Report, New Delhi, 1990.

This was also realised in Meghalaya long before the announcement of the National Policy on Education 1986, the Meghalaya Education Commission 1977 on its report stressed the need to strengthen the SCERT in the State.

The institutional arrangements in the country which take care of qualitative education have been taken up from time to time as can be seen from the review given above. Whether the programmes concerning improvement of the teachers in the field have reached them and whether there has been qualitative improvement in the system needs to be evaluated. Evaluation of the different programmes at the institutional level have been conducted including the evaluation of teachers. The following are some of the reviews done in the field.

### **2.1. Institutional Studies**

A number of institutional level studies conducted in India and abroad show certain trends regarding effectiveness of their programmes.

Aggarwal (1991) in *An Evaluative Study of the National Institute of Educational Planning and Administration* studied the various aspects of the course contents, its impact and the participants' view on Diploma Course on Educational Planning and Administration. One of the findings showed that the course by and large was able to achieve its objectives.

The possibilities of transfer of knowledge and skills covered in the course were rated high. The respondents also expressed satisfaction over the course methodology.

Ali (1990) in his study, *A Follow-up of the Islamic Preparation Programme of Kuwait University* with the purpose to evaluate the programme of the college of Education, Kuwait University, concluded that the graduates rate their preparation programme positively but perceived weaknesses in the instruction methods which were limited to lecturing and more theoretical knowledge than practical teaching skills was provided.

Babu et al. (1986) in the study *Acceptance Awareness and Impact of the Regional College of Education (RCE) Mysore* found that the respondents reported that they had some idea of the courses by the RCE. They knew that these courses were different from those offered by conventional colleges of education but very few teachers had an opportunity of being exposed to teaching materials and aids prepared by the RCE. The study also revealed that the ex-student were generally satisfied with the courses by the RCE.

Schulman (1964) studied the role of university extension, University of California, Los Angeles in meeting the in-service educational needs of school districts in the country and found that the programme of University extension was limited by University's policies in several ways like the

financial support, selection of instructional personnel, course offering, etc.

Blue (1989) in her study *An Evaluation of New Teacher Assistance Programme in a Large Sub-Urban School System* concluded that new teachers benefited from the assistance oriented induction programmes. It was also found that new teachers perceived their performance as being modified positively. They found their induction experiences as beneficial to their overall behaviours and level of job satisfaction.

Lalhuluma (1983) in *A Study of the Programmes of SCERT in Mizoram* revealed that the achievement of the SCERT was far from satisfactory. The reasons he gave were

- i) the SCERT has no building of its own to carry out the programmes more smoothly
- ii) there is no close co-ordination in its working with the Directorate and the Board of Education, and
- iii) there is no good library.

Linden (1986) followed up the graduate of the competency-based teacher education programme at Loreto Height College in Denver, Colorado. The study gathered information on perception of the graduates in regards to the strengths and weaknesses of the programme. The study revealed that the graduates evaluated their preparation for teaching highly.

Most of the responses were addressing to content and curriculum items were excellent.

Mukhopadhyay et al. (1992) conducted an Institutional Evaluation of Selected District Institutes of Education in Haryana. The study revealed beside other things that both the DIETs, Gurgaon and Sonapat had been conducting in-service programmes but DIET Gurgaon appears to be the leader in initiating the activities as well as helping DIET, Sonapat. It also revealed that the DIETs, in the State are under the Director of Secondary Education while all the activities of DIETs are pertaining to Elementary Education, SCERT takes care of the in-service needs of Secondary teachers.

Pandey et al. (1974) conducted a study on a decade of State Institutes of Education (SIEs) with the objective of finding out the impact the SIE made on School Education. The study revealed that the in-service training programmes were the courses run by majority of SIEs in the country. The course duration was found to be too short in most of the training programmes. The study also revealed that the research studies conducted by the SIE were mostly on School Education. Again in the area of school education, a large number of studies were related to elementary studies.

Resool and Verma (1988) in another study *An Evaluation Study of DIETs in Jammu and Kashmir State* found that the DIETs play a vital role in moulding the outlook of elementary

teachers. The study also showed that there is no provision of pre-service training of teachers in the SIEs. The In-service training is through refresher courses, workshops, massive training programmes, seminars, film shows, science exhibitions, debates, talent search test. The SIEs play an important role in the working of the DIETs. They decide the programme and train the resource persons of DIETs from time to time in various dimensions. The study also found that there is qualitative change in teaching-learning process and teachers have been trained in new pattern of textbooks.

The State Institute of Education, Chandigarh, in 1965 conducted a case study of eleven teachers training schools which revealed the need for modification of the syllabus of the training schools. In another study, the SIE, Gujarat evaluated in 1968 the intensive school improvement programme taken up by it in four districts of Gujarat. One of its findings revealed that demonstration of science experiment proved to be useful to the teacher.

Sana (1985) in a study *A Critical Examination of Primary Teacher Education Programme Changes*, found that in Zimbabwe, the primary teacher education programme lacked the institutional innovation and informal nature of the programme.

Sharma (1988) in a study of the impact of SIE Jammu on School education found that the programmes organised by the

SIE and DIES have changed the general outlook of the trainees and developed confidence in them to solve the problems related to teaching-learning process. The programmes have been successful to a great extent in reducing the gap between the theories taught in the Diploma/Certificate course and the requirement of classroom.

*An In-depth Evaluation Study of the In-service Teacher Training Project in Jordan (1979)* showed that the certification and In-service Teacher Training Institute (CITTI) was established in 1971 with some inputs from UNICEF to give the equivalent of two-year training to a large backlog of unqualified teachers. The study revealed that the CITTI programme had influenced teachers training policy in Jordan and recommended that this policy should be extended to provide the continuous training of teachers. In another study on assessment of application of UNICEF policies in education in Pakistan (1979) it was found that UNICEF has co-operated in the production and distribution of a teaching kit consisting of instructional materials covering a range of subjects (Science, Mathematics, Social Studies and Languages) and tools and instruments to assess and encourage teachers to produce inexpensive teaching aids from indigenous materials. The kit is supplemented with a self-help manual explaining the use of materials. The study showed that the teachers trainers are said to be too academic and the course content

insufficient on basic teaching methods. The kits were found to need a lot of adoption by the teachers and consequently many remained unused.

Another study was conducted to evaluate the In-service Educational Training Institute (ISETI) in Sudan. The report suggests that a national plan of action on teacher training is needed and that the curriculum needs realignment with the needs of integrated rural education centres that are being set up.

Sharma (1973) made a critical study of compulsory courses in the theory of Education offered by Indian Universities for the B.Ed./B.T. degrees. The study revealed that a large number of secondary school trained teachers mentioned that subject knowledge helped them most and training helped them least in becoming successful teachers.

Kumar et al. (1986) in a study *Motivation of B.Ed. Correspondence Course Students* studied the motivation of the selected group for taking up the Summer School cum Correspondence Course of the NCERT for the B.Ed degree. The study revealed that the teachers were motivated for teaching because of their liking for it and ambition to become teachers, the high esteem, given to a teaching profession by the community and for earning a livelihood. The studies suggested modifications in the training system in terms of making it more responsive to students need.

## 2.2. Studies Related to Curriculum, Methods of Teaching and Training

### 2.2:1. Curriculum Studies

A few studies have dealt with the broader aspects of curriculum and are reviewed in this section. Bareh (1973) reported in his book entitled *Meghalaya* that the curriculum in the schools of Meghalaya was outdated and do not conform to the needs of the students. He thus stressed the need to improve the curriculum in the State for provision of qualitative pattern of education in the schools.

Bahuguna (1973) in the *Study Evaluation of Commerce Education upto Higher Secondary Level in Rajasthan* evaluated the Commerce syllabus and found that the standard of Commerce education at the secondary level also was not very high and also the Commerce syllabus was not related to the employment market.

In a similar study Chanana (1967) made a historical survey of the high school curriculum in Punjab during the 20th Century and advocated a new and effective secondary School Curriculum. Dewathalee (1978) conducted the study *An Investigation into the present Secondary Education Curricula (Standard V to X) in the Maharashtra State with a View to Find Out the Curriculum Revision in the Context of Vocational*

*Education at all Levels.* The study concluded that the academic atmosphere was in favour of vocationalisation and pupils be given a certificate for successful completion of a vocational course.

A study on the environmental education programme in the primary schools of Bangladesh (Eshan, 1985) disclosed that in the experts opinion the objectives of the programme should be specific, stated in behavioural terms and should lay stress on cognitive, psychomotor and affective development of children. Further, it was opined that the content topics of the modified programme was up-to-date and suitable to the learners' needs, interests abilities and experiences.

Kumar (1985) found that reorganisation of a prescribed chemistry curriculum framework and its execution through a dynamic model of instruction positively affected the combinatorial reasoning and controlling variables of students when compared to those who were not exposed to such an exercise.

Some studies deal with critical analysis of the different components subject-areas with the existing curriculum. A critical study of the development of Urdu curriculum in Secondary education in Maharashtra done by Kazi (1986) demonstrated that the Urdu Curriculum was able to fulfil the aims of secondary education and was of practical utility for the students in particular and society in

general. In a similar study, Koul (1981) made a critical study of the fundamental curricular issues relevant to the teaching of English in India leading to the teaching of English language, teaching-learning curriculum (ELT/L) by collecting data from the States of Rajasthan, Andhra Pradesh and Kashmir.

Mero (1983) studied on Co-curricular Activities in the Schools of Shillong indicated that both the teachers and students lack necessary motivation for co-curricular activities and found that not more than 20 per cent of students participated in co-curricular activities.

Singh (1957) studied the English curriculum for Class-X found that the attainments of 82 per cent of the pupils in the sample were poor. He felt that the curriculum was too heavily weighed on Grammar and translation. His finding was that parents, teachers and even pupils were dissatisfied with the standard and the desire to raise it was universal.

Pillai (1959) investigated into the problem of contents and scope of the social studies curriculum for secondary schools. Although devoted to the secondary curriculum, Pillai favoured a fused course in the subject for the primary course where it would be compulsory for all, but a more systematic study in the secondary course where it would be an elective subject.

Pendse (1960) studied critically the physical education curriculum for secondary school girls and to make suggestion for improvement in Poona city area. Dharam Vir (1954) examined the suitability and actual working of the new general Science syllabus for the primary and middle departments of the Punjab Schools. The study revealed an indifference to Science and an inadequate provision of instruments and materials. The whole body of science teachers included in the sample wanted to undergo refresher courses to study the use of new apparatus. The investigator found the curriculum unsuitable and unpractical. Only about five per cent schools used new aids slides, films, radios and museums.

A similar study was made by Jaswal (1960) to ascertain suitability of the new general science syllabus for higher secondary classes in the Punjab. He selected for his study content, demonstrations, experiments and outdoor activities. He too found that teachers wanted refresher courses for their own improvement and considered the curriculum heavy. They also suggested replacement of difficult and unmanageable experiments by demonstration by teachers. Kamath (1957) studied the general science syllabus for standard VI to VIII and Kasbekar (1957) for standard IX to XI, from the point of view of audio-visual aids it needed. They concluded that the use of audio-visual aids involved some practical difficulties of finance, accommodation and trained personnel and a

reluctance on their part of the teachers to employ these devices. The proper environment for science teaching was missing. It was suggested that science charts and films should be prepared and trained personnel made available.

Basu (1951) sought to determine the place of elementary science in secondary schools in India. He concluded that a large number of pupils offered Science and so the teachers favoured the introduction in the curriculum of a compulsory subject called general science which comprises physics, chemistry, biology, geology and astronomy with their applied values to daily life. To cope with the rapid advancement of the country, the syllabus in the subject should have more of practical work and home science courses should be provided for girls.

Vijayvarguja (1969) conducted a survey in Rajasthan to determine the status of the population education in the State.

Ganguli et al. (1985) found in his study of the curriculum that the guided opened approach was superior to the traditional laboratory approach in developing the content matter and practical skills in Physics.

Giri (1977) made a comparative analysis of the principles of curriculum development. It was found that there existed well-structured curriculum and appraisal principles in the developed and developing countries, although their

aims differed significantly. In another study Gupta (1973) in *A Critical Analysis of Elementary School Curriculum in NEFA* found that schools of NEFA suffered from problems of low enrolments and irregular attendance. The following were the effects of the existing curriculum. Over emphasis on the three R's, isolation from life outside the school, inadequate provision for the needs of child's life, subject-centred rather than child centred, examination dominated and curriculum not related to the NEFA environment.

Ghosal (1973) analysed the curricular trends in secondary school in India during British rule in the context of development in England. His thesis has shown that secondary school in India had failed to come up to expectation for the simple reason that its curriculum was an imitation of the British model without proper consideration of the social, economic, cultural context of the nation.

Godhiverekar (1947) made a comprehensive study of the secondary school curriculum in the province of Bombay. He criticised the then curriculum to be narrow in aim being a left-over of the British rule and recommended reconstruction of a new curriculum catering to all aspects of development of the learner.

A comparative study of curriculum was done by a number of researchers. Krishnan (1981) conducted a comparative study of the science curricula of Kerala and Tamil Nadu. The study

revealed that both were moderately satisfactory with respect to all dimensions except the methodological instructional ones.

Ramesh (1984) reported that both the objectives-based curriculum and conventional curriculum in Chemistry were equally effective so far as achievement in Science was concerned. However, with regard to acquisition of process skill, the objective based curriculum was found to be more effective than the conventional one.

Singh (1977) conducted a study to evaluate the present science curriculum of standard-VIII and to suggest modifications in the present curriculum with a view to achieving skill oriented objectives of teaching of science. The study revealed that the curriculum suggested was more suitable than the existing science-curriculum in force in the state and suggested modifications. In another study Sharma (1965) conducted a study on the *Problems of Primary Teachers and their Views on the Present Syllabus*. The findings revealed that the syllabus needed modifications.

A similar study done by Srivastava (1956) made a critical study of the junior high school curriculum meant for the age-group of 11 to 13 years and found it defective. The reasons given were : it was not framed by teachers, knowledge was given over-emphasis, there was a gap between school and society and values of life and the needs of children had been

neglected. Sharma (1951) critically evaluated the high school curricula of Delhi and Ajmer and found them centre on examinations and emphasising knowledge. It was not prepared by teachers, there was no relation between theory and practice correlation of subjects was absent and suitable textbooks were not available. He suggested a more varied curriculum, suited to the needs of the individual and the community of the present times.

Vimaladevi (1986) in the critical study of reading ability of pupils in English found that the important critical reading skills such as identifying, organising, relating, predicting, reasoning, judging questioning and applying could be developed through probing questioning and applicational aspects could be developed through probing questions by teachers.

Vyas (1969) in similar study studied the reading habit of pupils of classes-IX, X and XI in Rajasthan. As expected, the results confirmed that the reading habit among pupils was poor and the teachers did not help cultivate it in pupils.

#### 2.2:2. Studies on Methods of Teaching

Many researches have been done on the methods of teaching in various subject-areas in the school curriculum. Some of them are reviewed in this section. Agnihotri (1987) reported that the method of teaching physics systematically

was found to be more effective than four other methods, namely lecture-cum-demonstration, programmed instruction, laboratory and assignment-cum-discussion.

The position of teaching history was investigated by Ingole (1985) in the rural secondary schools of Sholapur District. The study revealed that nearly 40 per cent of the teachers had not offered history as a special subject at the graduate level and yet the pass percentage of students was found to be very high. The result of a similar survey in respect of geography indicated that the status of teaching geography in Gujarat was not satisfactory.

Khare (1986) in his study, reported that students' achievement was better under a structural approach than that under the traditional method in respect of spelling, comprehension, composition, applied grammar and vocabulary.

Patel (1985) investigated the position and problems of teaching geography in the rural secondary schools of Sholapur district. One of the interesting findings was that physical and educational facilities were inadequate for effective instruction in the subject but the percentage of students passing geography was very high, i.e. 74 per cent.

Two studies, one each in geography and history were conducted by Ponkshe (1983) and Patel (1984). the former study indicated that the state of affairs in teaching history was as unsatisfactory as has been reported for other states.

The latter study concluded that the geography syllabi for classes VII, VIII and IX of Maharashtra were not concept-oriented. Inadequacy was also observed regarding many other aspects of the syllabi.

Problems associated with the implementation of the Socially Useful Productive Work (SUPW) programme was investigated by Sindhi (1985). The problems involved in the planning and preparation centred on motivation, selection and organisation. The large number of students in classroom, lack of ability of teachers to integrate the other subjects with SUPW, the tendency to equate it with child labour, apathy of the community and non-availability of funds were the main problems hindering its proper implementation.

Sharma (1982) made a comparison of individual and group correction of written work in English in Classes-VII to X, No significant difference was found between the mean performance of students. In another study, the problem of teaching English in Bihar was studied by Sharma (1986) who concluded that during the past three decades there had been a gradual lowering of standard of English due to various reasons like socio-political problems of teaching English.

The research wing of Bombay Municipal Corporation (1957 and 1969) studied the effect of child-centred teaching, practice and correlated play activities on children's attainment, attendance and discipline. Studies on the

effective use of audio-visual and attracted the attention of some researches. The investigation by George (1966), Sonar (1975) and Bharadwaj (1981) related to the use of audio-visual aids as applicable to the teaching of school subject. Raj (1974) studied the cognitive effect of ETV programmes while Shah (1973) surveyed the scope, utility and limitations of ETV in India. In a similar study, Educational Technology Cell, SCERT Meghalaya (1987) studied the impact of ETV on school programme was found beneficial by the teachers.

Some researchers were mainly concerned with the study of the existing state of affairs regarding the use of teaching methods. Swarnamma (1978) conducted an enquiry into the teaching of biology in the Upper Primary Schools of Kerala found that most teachers resorted to the Lecture demonstration method in teaching the subject. Muddu (1978) studied the prevalent status of instructional procedure in biology in the High School of Hyderabad and Secunderabad and reported that most teachers preferred only the lecture-demonstration. Devi (1979) made a critical study of the methods of teaching in the Secondary Schools of Nagaland and found that teachers were more interested in the lecture method than any other instructional procedure.

A few studies, Kushdil (1960), Kamalakanthan (1968), Rajput and others (1980), Malhotra (1982), Patel (1967) were carried out to compare the traditional approach with an

integrated approach or environmental approach. All these studies have shown that the traditional approach is ineffective. Mitra (1974) evolved a method of teaching English and validated through classroom experimentation. Mohammad Miyan (1982) examined the effectiveness of the three methods of teaching and learning Mathematics creativity, the tell and do, guided discovery and pure discovery in developing mathematical creativity and found that the guided discovery method was the most effective in enhancing originality as compared to the other two methods. In a similar study, Sharma (1978) found the guided activity was more effective than self-activity in respect of concept-formation in natural science. Jha (1979) compared the different methods of teaching high school biology and reported superior performance in the case of activity-based approach. Sivadasan (1979) attempted to compare the effectiveness of different classroom situations on the attainment of objectives of Science education.

Mohire (1989) in *A Critical Analysis of methods and Means of Teaching English at the Undergraduate Level* observed that the teachers had no kind of training with regards to teaching method for teaching English.

In another study, the SCERT, Andhra Pradesh (1980) found that according to the teachers and Headmasters the new Science curriculum was relevant to the environment of

children whereas the parents and children felt that it increased the cognitive lead.

Talukdar (1993), studied the problems of teaching learning of integrated Science in Borno State of Nigeria. The study revealed that integration of the Science means a broadening and a bringing together. This is true of context and content. Integrated Science is broader than just Physics, Chemistry and Biology — it needs to show the everyday context in which Science operates and it includes earth science, environmental science and other areas too. But the broadening applies to skills and processes as well. A truly integrated science provides pupils with opportunities to develop a wide range of skills that will be useful in future life.

### 2.2:3 Studies Related to Textbooks

As curriculum and methods of teaching are in the process of development and change so are the textbooks. The textbooks are selected or revised in accordance with the instructional objectives and requirement. Again selection has to be done on the basis of systematic evaluation and research.

NCERT took the lead in this direction. A crash programme to evaluate textbooks in all the languages in the country specially from the view point of finding out anything

that went against the cherished goal of national integration was undertaken by the NCERT. The NCERT also undertook studies to develop evaluative criteria for assessing textbooks. A study on textbooks under review was done by the Department of textbook (NCERT, 1970-72). It included nine studies which developed the basic principles and procedures in preparation and evaluation of textbooks separately in mother-tongue, second language, English, History, Geography, Social Studies, General Science, Physics and Biology. In view of the defects of textbook production trade, all states have nationalised the preparation production and distribution of school textbooks.

Rajlakshmi Bora (1985) in her study *An Analysis of English Reader* prescribed for Class-VIII of High School of Shillong suggested that evaluation of all the English textbooks used in different classes in the schools of the State and a critical study of the English curriculum be done at the primary and secondary stage in Meghalaya.

Chaudhuri conducted a critical evaluation of School Education Textbook Improvement Programme in India (1977) and the finding of the study revealed that existing tools and techniques of textbook evaluation were based on such latest approach in content presentation and these were perceptible in some books produced by NCERT. Syllabus, objectives and bibliography were usually absent in nationalised textbooks.

In another study of evaluation of instructional materials used on project schools, Dave et al. (1988) reported that the achievement of pupils in Environmental Studies (EVS) in project schools attained significant greater means than their counterparts in non-project schools in all classes as in the case of language and mathematics. The study also revealed that the effectiveness of the intervention of materials and methods in improving teaching and performance of pupils.

The use of Mathematics textbooks (Class-VI) was studied by Krishna et al. (1980). It was reported that only 15 per cent of teachers studied the textbook thoroughly and tried to assimilate the new concepts and methods suggested therein.

Lambhate (1987) reported that the instructional materials for science teachers helped them to perform better in the selection and organisation of content, use of scientific terminology, teaching aids and experimentations and maintaining classroom discipline by sustaining the attention of pupils.

Mishra (1985) demonstrated that the material developed by the SCERT, Orissa, in Population Education increased the total awareness of students regarding population problems. Mehta (1983) in another study, reported that some or all school textbooks up to primary and secondary stages were nationalised. Twelve states had established autonomous bodies for production of textbooks.

Nair (1976) conducted a study of the concept of standards in English through an analysis of textbooks prepared for secondary school pupils in Kerala State since 1952. His main aim of the study was to analyse the textbooks in English prescribed for the secondary schools pupils in Kerala. The study attainment in English had changed with the change in textbooks.

Rastogi and others (1975), in one study developed principles for preparation of textbooks of mother tongue as also the tools and techniques of evaluating them. In another study, Rastogi and others (1973) made a comparative study of mother tongue in Bengali, Gujarati, Hindi, Telugu and Urdu. Gagneja (1974) studied the treatment of six leading countries in the world in the textbooks of Social studies, Geography and History. Compared with other countries, USA got the maximum attention.

Pattabhiram (1973) attempted to evaluate the nationalised textbooks in Social Studies prescribed for schools of Andhra Pradesh. It was found that nationalised textbooks were better in quality as compared to old textbooks but there were enough rooms for further qualitative improvement.

The SCERT, Andhra Pradesh (1981) in an evaluation study of Mathematics and Physics textbooks in the schools in the State reported that the Mathematics and Physics textbooks not

only comprised modern concept and were in conformity with the principles of syllabus but also cater to the needs and interests of pupils.

The SIERT, Rajasthan (1982) conducted a case study of the implementation of Project Primary Curriculum Renewal. Since the project was introduced as a total curriculum package it had a salutary effect on all aspects of primary education, viz. provision of physical facilities, to match the attainment of children, including the change in attitude of teachers, parents and the community at large. In a similar study, SIE, Orissa (1975) evaluated the effectiveness of the Experimental Textbook Science is doing for Class-III prepared by NCERT in the Orissa schools. The study revealed that all the physical aspects of the textbooks were judged to be good except the get-up. The teachers suggested to eliminate some portions of the textbooks as they were not suitable for the pupils of the age-group 7+. A change in order of arrangement of chapters was demanded and more illustrations were suggested to be given in the book.

Sinha (1976) established some broad outlines of criteria for evaluation of curricular materials in Mathematics. The main findings showed that materials in Mathematics were by and large acceptable. Materials did not reflect necessarily the spirit of so-called new Mathematics.

It had often been mixed up with ritual in the shape of rote learning techniques.

Tharwani (1982) critically examined the prescribed textbooks in Hindi lower-level from classes-V to X in Maharashtra. He found the books are defective on many counts.

SCERT, orissa in a pilot study, *Introduction of Work Education in Primary Schools* aimed at identifying the situation related to work education and to develop necessary instruction materials and to develop tools to evaluate the outcomes of activities related to work education. The major outcome of the pilot study was that a curriculum on work education and instructional materials were developed, tried out and found satisfactory.

Angami (1983) in *A Study of Socially Useful Productive Work in the High School of Kohima Town* revealed that different types of SUPW were undertaken by various schools in Kohima Town. The study also revealed that by and large, both teachers and students have given favourable opinion towards SUPW programme.

Sangma (1973) carried out a study on the use of audio-visual aids in the schools of Shillong. He sampled twelve schools of Shillong and administered the questionnaire on the teachers. The study revealed that in most of the schools, where there is provision of such aid as radio tape-recorder,

projector, epidiascope etc. those were not used by the teachers.

#### 2.2:4 Studies on In-Service Teacher Education and Training

A number of studies have been conducted by individuals and agencies in the area of teachers training programme where in-service programme form part of the programme.

In-service education is now regarded as including all activities and experiences participated in by professional personnel during their service as teachers, administrators and supervisors that are planned and organised by various agencies like Teacher Training Colleges or the State Council of Educational Research and Training. The programmes seek to bring about desirable changes in all aspects of education. An effective programme is judged by the touchstone of the concrete educational changes brought about in schools, classroom practices and teachers attitude.

The first reference ever made to the need for a programme of in-service education of teachers was in the Government of India Policy Resolution in 1904 where attention was called to the need for in-service education of teachers. This was at the beginning of the 20th century. The Government Policy Resolution in 1913 again pointed to the need for in-service education of teachers. In 1929, the Hartog Committee recommended refresher courses, conferences and meetings "to

brighten the lives of the teachers and improve their work". In 1937, the report on vocational education in India by Abbot and Wood referred to the new concept of two-fold training of teachers, namely, pre-service training as well as in-service training.

After the report of Abbot and Wood, the report on Post-War Development in India, the University Education Report in 1949, the Secondary Education Commission Report in 1953 all made pointed references to the need of desirability to make provision for in-service education of teachers. The same has been stressed by the National Policy on Education and its Programme of Action 1986 followed by the Revised Programme of Action 1992.

The National Institute of Education (NIE) also has a big programme of extension which includes in-service education. The NIE programme of in-service education declines with the establishment of SIES/SCERTs in the States whose role has been replaced by them.

Assessment of these Extension Centres undertaken has clearly shown the importance of In-service Education Programme in the efforts at qualitative development of school education.

Ansari (1958) studied the problems of professional efficiency of women teachers in Bhopal Secondary School, and one of the findings was the higher the qualifications and

training, the greater the chances of the teachers being professional efficient. A similar study by Gupta (1958) shows that efficiency in teaching increases with greater academic qualification and training.

Banerjee (1967) in his study, *Training of Primary Teachers in India* concluded that there were weaknesses and shortcomings in the professional education of primary teachers and vigorous attempts were needed to put the programme on the right track.

Bhatia (1987) evaluated the new B.Ed. curriculum in the colleges of Education affiliated to the University of Bombay. The finding revealed that there were some changes in the new B.Ed. syllabus on the one hand while on the other hand quite a few topics were repeated. Implementation was found very difficult and the revision of the curriculum had not brought about any serious changes to help produce a quality teacher.

Bhattacharya (1951) in his study *Teacher Education in West Bengal* pointed out that the problem of training is three fold : i) retraining of the existing band of trained teachers; ii) training new entrants in the profession; iii) retraining of the already trained teachers at intervals. The main suggestion is that in-service training centres should be evenly distributed in rural and urban areas.

Brown (1966) arrived at the conclusion that the quality of teaching can be improved only with better training facilities and programmes.

Das (1979) in the study effectiveness of teacher training in reducing educational wastage found that the training of teachers at primary level had no significant contribution towards reduction of wastage and stagnation in schools with multiple class teacher. Training of teachers had no significant impact on the system of education at the primary level. On the contrary, another study by Lalbiaka (1982) in a comparative study of teacher attitudes among the trained and untrained teachers in Mizoram indicated that there is a significant difference between trained and untrained primary school teachers in their attitude towards teaching profession. The research finding reiterates the relevance and importance of professional training at various levels in Mizoram.

Devi (1985) in her study *An Investigation into the Programme of Teacher Education in Manipur* found that the teacher training programme for graduate started in 1972 and training for B.Ed., Elementary course is being organised by the State Institute of Education, Manipur as a sub-centre of the Regional College of Education, Bhubaneswar.

Fakhruddin (1981) in *An Appraisal of Selected Aspects of Pre-service Secondary Teacher Education Programmes at*

*Dacca Teachers Training College of Dacca, Bangladesh*, to determine the strengths and weaknesses of the programme and on the basis of findings, recommended changes for improvement of the Secondary teacher education.

Mama (1980) in the study of the impact of inservice education on teachers in the State of Maharashtra revealed that little importance was attached to in-service education and the teachers were sometimes prevented from attending in-service programme by the Principal as control of in-service programmes was in the hands of the school principals.

Randolph (1964) found that the proposed programme of science preparation for elementary teachers consisted the content of elementary school services with an emphasis upon the open-ended investigation into all aspects of the school child's total environment.

Roy (1965) attempted to follow up the teacher education programme by finding the relationship between success of teachers when they were trainees in an Institution of Education in Delhi and when they were teachers in Schools after training. One striking result of the study was that the training college staff and the principals had in common with each other in judging the teacher than either groups had with secondary school pupils.

Karnal (1963) in his attempt to evaluate a workshop and its effect as a process in the in-service education of

teachers found out improved behavioural changes and teachers had become more competent professionally because of increased reinforcement.

Kholi (1974) critically evaluated the curriculum of teacher education at the B.Ed. level in Punjab. The study came out with a view that there should be an annual review of curriculum by a competent body.

SCERT, Andhra Pradesh (1980) in an evaluation of *In-Service Training of Secondary School Teachers in Science Teaching Centres* attached to the College of Education found that the course was useful to improve professional competence and many simple techniques were given to make improved apparatus for teaching Science but the duration of the course was quite short. According to the participants time allotted to practicals was not satisfactory. In another study, the SCERT, Andhra Pradesh (1981) evaluated the in-service training institutions in Andhra Pradesh with respect to staff books and teaching strategies adopted. The finding revealed that dearth of required facilities and adequate financial provision were the major findings.

SIE, Gujarat (1969) conducted a case study on primary teacher training in Gujarat and found that more physical facilities were needed for the trainees as these institutions were residential institutions. All the institutions had adequate number of B.T. staff members. No institution had a

science laboratory. There was no reading facility. There was a great need for adequate provision of physical facilities. Fifty per cent of the staff members needed refresher courses.

Upasani (1966) made an evaluation of the existing training programme for primary teachers in Maharashtra. He recommends that there should be a special officer at the Directorate level. He also recommends that the duration of the training should be 2 years to acquire various skills.

### **2.3. Conclusion**

The review of related literature and studies concerning the institutional studies revealed that there is a common trend in India and abroad that the programmes conducted by the University Department, Education Department of the State, SCERT/SIEs and DIETs contributed to a qualitative change in the teaching-learning process and teachers have been trained in the new pattern of textbooks. Review of research studies pertaining to curriculum development revealed that there is the need for modification of syllabus from time to time. Some studies dealt with the critical analysis of different components of subject-areas of existing curriculum while other dealt with the methods used by teachers. The method most interested by teachers were lecture or lecture-cum-demonstration. But the trend showed that wherever an activity-based method used there was superior performance of

students. The studies also demonstrated that materials developed by the SCERT increase the awareness of teaching in the emerging problems and show effectiveness in the performance of their pupils.

Review of studies on in-service teacher education and training showed the importance of training for professional growth of the teachers. Teachers improved with better training facilities and their attitude towards profession also improved with the training. In Meghalaya, the quality of such research studies require much to be desired. While there was no such study conducted in the state, the present study is the pioneer work done in this direction.

**Chapter-III**

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**METHODOLOGY AND PROCEDURE**

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### **3.0. Rationale**

The present study is descriptive in nature since its major focus is to study and describe the growth and development of an institution including a preliminary probe into the effectiveness of its programmes. The study consisted of two sections. One section dealt with collection of information through survey of records regarding the origin and development of the SCERT and the types of programmes conducted by this institution since its inception. The second section dealt with the assessment made by the investigator on the effectiveness of the programmes and activities of the SCERT. This section includes the information obtained through responses of a sample of beneficiaries of the programme regarding the effectiveness of the programmes. This was also supplemented by interview of the academic officers of the SCERT on their implementation of different programmes and the problem faced by them in implementing the different programmes and activities.

### **3.1. Sources of Data**

The data were collected by using different techniques namely (i) Study of relevant records and other literature; (ii) Discussion with personnel; (iii) Administration of three types of questionnaires to beneficiaries of three different training programmes and a questionnaire sent to the District

Officers, the Principal of Elementary Teacher Education institution and selected heads of secondary schools who are actually involved in the programmes of the SCERT; (iv) Conducting of interview with the academic officers in the SCERT with the help of an interview schedule.

### 3.1:1. Study of Relevant Records and Other Literature

Relevant records and related literature, both published and unpublished, were referred to in detail. The records were obtained from different government offices, such as Directorate of Public Instruction Office, Education Secretariat, Planning Department of the Government and different libraries. But the main collection of data was done from the office of the Director, State Council of Educational Research and Training, Shillong. The study of relevant records was done in two parts. The first part was on the origin and development of the SCERT as the newly established institution. The second part was a survey of various programmes and activities conducted by the SCERT since its inception.

### 3.1:2. Discussion with Education Officers

The survey of records was supplemented by meeting the concerned official in the Education Department and discussed

the issues under study. These discussions were used for furthering the information already collected.

### 3.1:3. Data Collected through Questionnaires

The investigator prepared four different types of questionnaires for collection of data. The three questionnaires developed were to collect information from three different groups of teachers regarding the effectiveness of three different training programmes conducted by the SCERT and one questionnaire was to collect opinions and suggestions of the concerned officials in the field of education which included the Inspectors of Schools and Deputy Inspectors of Schools, the Principals, Elementary Teacher Training Institutes, and the headmasters/headmistresses of Secondary Schools.

#### Development of Questionnaire

The questionnaire that was developed for the first programme was used to collect information regarding the various aspects of the training programme. The questions were about their attendance in the training programme, adequacy of the training duration, meeting of the objectives of the training course, the competency of the resource persons, the relevance of the content, the effectiveness of the methods used during the training, the overall evaluation of the

programme and to obtain their suggestions to make the programme more relevant in future.

The second questionnaire was on the implementation of SUPW as part of the school curriculum, knowledge of the subject area, methods used during the training — the effectiveness of the content, evaluation of the subject, general difficulties faced and suggestions to help solve these problems.

The third questionnaire was for the primary school teachers and questions asked were on the meeting of training objectives, adequacy of training duration, relevance of the content, effectiveness of the methods used during the training, adequacy of the course material and their suggestions to make the programme more meaningful in future.

The fourth questionnaire was on the role of the SCERT in general, the types of programmes to be conducted by SCERT in order to fulfill its role, the role played by the education officers, in deputing the teachers, in assessing the work done by the teachers after training, the programme to be conducted in the next few years and their suggestions to improve the training programme.

The first drafts of these questionnaires were subjected to the scrutiny of experts. Discussion was held with them, the try-out form of the questionnaires was developed and administered to a group of teachers who have

received the training conducted by SCERT to determine their suitability. On the basis of the analysis of responses of the try-out forms of questionnaires, all the headings initially identified were retained but some questions were modified.

#### **3.1:4. Development of Interview Schedule**

Having planned an indepth survey of programmes and activities of the SCERT in the State, an interview schedule was prepared for academic officers of the SCERT in the State. It was related to the types of programmes conducted by them, the objectives of the programmes, the number of beneficiaries, the procedure of their implementation of programmes, the Resource Persons recruited, the use of supporting materials, evaluation of their programmes, the follow-up service and the problems faced by them in the implementation of the various programmes and activities. Care was taken to make proper wording of the questions to ensure communication and accurate response. The type of questions were both structured and open-end type of questions to elicit the required responses.

#### **3.2. Population and Sample of the Study**

Having surveyed the records, both published and unpublished, available in the office of the Director, SCERT, the different types of programmes and activities conducted by

the SCERT were identified and the number of beneficiaries of the different training programmes in the State were also identified. These beneficiaries of SCERT programmes formed the population of the study.

In order to find out the effectiveness of the training programmes conducted by the SCERT, the investigator selected three types of training programmes; programme on a traditional subject; (ii) programme on a newly emerging subject, and (iii) a general training programme on Special Orientation for primary school teachers (SOPT). The first programme was followed up in the in-service trainings in Science and Mathematics for Secondary and Upper Primary School teachers. The second programme was on the Training-cum-Workshop in SUPW for Upper Primary teachers and the third one was on Special Orientation Programme for Primary School Teachers (SOPT).

The population of the study in respect of the first programme was 1630 teachers who were identified as beneficiaries for the in-service Training for Science and Mathematics for Secondary and Upper Primary School teachers. Of these, 126 teachers formed the sample of the study. Random sampling method was adopted for selecting the sample of the study. Care was also taken to include secondary and upper primary school teacher, male and female teachers from government and non-government schools located in rural and

urban areas located in all the seven districts of the state. In the second programme the total beneficiaries of 564 formed the population of the study. Out of these, 57 beneficiaries were selected at random as the sample of the study. The third programme, i.e. the SOPT, the number of beneficiaries were more with 3417 primary school teachers. Out of these 200 formed the sample size of the study.

The investigator also felt that the information elicited from the teachers beneficiaries could be supplemented by the responses of those who are actually involved in the field and also in the SCERT training programmes. So, their responses were also elicited. From the 3 Inspectors of Schools, only 1 responded and out of 15 Deputy Inspectors of Schools only 8 of them responded. The Principals of 10 Elementary Teacher Training institutes were also included in the study. Out of 10 only 6 responded. The headmasters/headmistresses of secondary schools, 5 from each district were also identified and given the questionnaire. Out of these, only 20 responded from all the districts and these formed the sample of the study.

### **3.3. Collection of Data**

#### **3.3:1. Administration of Questionnaires**

Before administration of the questionnaires, the investigator sought the permission from the Government to

undertake the study. So, the questionnaires were sent to the beneficiary teachers directly. The questionnaires on the in-service on Science and Mathematics were sent to the teachers with the help of the SCERT officers, District officers and the rest were posted to them directly. In the second programme, the questionnaires were personally administered by the investigator in a training programmes of the SCERT where teachers from all districts in the State attended the programme. For the third programme the questionnaires were mailed to the primary school teachers.

The questionnaires for the District officers, Principal, Elementary Training Institutes and heads of the secondary schools were posted to them. The questionnaires were then mailed back by them.

### 3.3:2 Administration of Interview Schedule

Interview was personally done by the investigator with the help of interview schedule.

### 3.4. **Data Analysis**

The data collected through the questionnaires were scored, tabulated and analysed. The data on the first programme i.e., the programme on in-service Training in Science and Mathematics were categorised level-wise, qualification-wise, rural-urban area-wise and based on their

experience. Calculation of percentages was used as a statistical technique for analysis of the data.

All the responses collected by the interview schedules were analysed in a descriptive way.

## **Chapter-IV**

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### **ORIGIN AND DEVELOPMENT OF SCERT, MEGHALAYA**

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#### 4.0. Introduction

Education is a dynamic process and undergoes changes according to the need of time. The school curricula change from time to time and knowledge grows or changes with the change of time. The Teacher is the principal means to implement the scheme of education and teaching is a technical profession which requires specialisation in respect of knowledge and skills. Since there is a wide gap between theory and the knowledge, skills, methodology of teaching required in the classroom situation, therefore, a routine bound teacher cannot act in accordance with the emerging changes unless he/she is frequently oriented. Hence updating of knowledge and learning of new skills are very essential. Teacher preparation and making provision for their continuous professional growth necessitated the establishment of special type of institution such as the State Council of Educational Research and Training (SCERT).

The State Council of Educational Research and Training (SCERT), Meghalaya, was set up on the 4th October, 1976, and was formally inaugurated on the 8th November, 1976. How SCERT, Meghalaya came into existence will have to be traced down prior to the attainment of statehood of the Meghalaya State.

#### 4.1. Origin of SCERT

The first two Commissions set-up by the Government of India in 1949 and 1953 to recommend ways to reorganise and develop higher and school education respectively had suggested the setting up of specialised establishments at the central and state levels to provide academic and research support to the then newly developing education system.

A National Council of Educational Research and Training (NCERT) was constituted as an autonomous body under the Ministry of Education, Government of India, and registered under the Societies Registration Act (Act XXI of 1960) with the Union Minister as Ex-Officio President.<sup>1</sup> This transferred all the subjects of educational research and training from the Ministry of Education to the National Council as far as School education was concerned.

Established on 1st September, 1961, with its headquarters at New Delhi, the NCERT's main objective is improving the quality of school education. The main functions of the Council are to undertake and promote and coordinate research in all branches of education, organise pre-service and in-service training mainly at an advanced level, organise extension services, undertake and organise

1. The Times of India Directory and Yearbook including Who's Who 1962-63.

studies, investigations and surveys relating to educational matters or the appraisalment of educational programmes, disseminate improved techniques and practices to educational institutions, establish and manage the National Institute at the Headquarters and Regional Institutes in different parts of the country, act as clearing house for ideas and information on educational research and training and extension, advise the Government of India on all matters relating to School education and undertake publication of books, periodicals and other literature for furtherance of its objects.

The year 1963 was an eventful year in the history of teacher education. It was in this year that the Union Ministry of Education<sup>1</sup> decided to set up State Institute of Education in every state. This proposal was discussed at a conference of State Ministers of Education in May 1963. All the State Governments, except Assam, Madras and Kerala established their institutions in 1964. Later such institutions were established in these states also.

The State Institute of Education, Assam, came into being in April 1965. It is located in Jorhat. It has been established with the main aim to bring about quality

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1. Education of Teachers in India, Vol.I, edited by S.N. Mukherjee, President, Indian Association of Teacher Education, 1968, S. Chand and Co., New Delhi, p.89.

improvement of education. It deals with problems such as (a) Improvement of teachers' professional growth through programmes of in-service training, seminars, workshops, etc., (b) Improvement of educational supervision and administration, (c) Improvement of curricula, development of research, (d) Evaluation of educational programmes (e) Conduct and supervision of educational experiments. The above mentioned objectives are carried out with the following branches — Research, Training, Extension and Publication.

The SIE, Assam, Jorhat is engaged in academic improvement of primary education in the State. There is a Primary Extension Service Centre attached to the SIE<sup>1</sup>. The Centre took up work in 50 primary schools under its jurisdiction. Total improvement programme was carried out in these schools in an extensive manner, such that the best ideas and practices could in the long run be disseminated throughout the State.

Since the establishment of the NCERT, the extension services centres have been an important agency through which the programmes and activities of the various departments of the Council have been taken to the field. The Field Unit, NCERT, Shillong, which is the third such unit in the country

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1. B.K. Nath, Education in Assam, NCERT, Office of the Field Adviser, p.81.

was set up in September 1967 by the NCERT.<sup>1</sup> The field unit at Shillong started functioning with the Field Adviser as its head. He is in overall charge of supervision and implementation of the programmes of the Field Unit. The field unit at Shillong was set up in cooperation with the State Government. At the beginning, the Field Unit has started functioning from the office of the Director of Public Instruction, Shillong (then) Assam and later on, the office of the Field Unit was shifted to a rented building with effect from 1st December 1967.

The major functions of the Field Unit are

(i) to act as the field agency for all the departments of NIE and NCERT;

(ii) to act as Liaison agency between the NCERT (including NIE) and the State Department of Education;

(iii) to act as a clearing house both for NCERT and the State. It should keep NIE abreast with the latest educational information available in the State on one hand and acquainting the State with the activities of NIE and NCERT;

(iv) to keep the State Department of Education and other agencies informed of the various publications of the Council;

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1. Ibid. p.93.

(v) To keep close contact with the extension services centres (secondary) located in the State and to provide guidance and assistance.

The Shillong Field Unit then was serving Assam, NEFA (now Arunachal Pradesh), Nagaland, Manipur and Tripura. At present, the Field Unit has been restricted to three states only, Meghalaya, Nagaland and Mizoram.

The Third Education Commission in the country was set up during 1964-66 with Dr. D.S. Kothari as its Chairman. The Commission recommended a basic structural change in the set up of the Department of Education at the State level. The Commission strongly advocated complete separation of the academic and the administrative wing of the Department of Education in order to ensure more justice to education. It was thus felt that the Department of Education had failed to do justice in the discharge of both its administrative and academic functions. Moreover, new important areas of education, like teacher training programme, introduction of science in rural areas, curriculum reconstruction and development, measurement of quality and standard of education, documentation of educational statistics, development of teaching aids, work experience, technical and vocational education for the handicapped and talented children and development and production of text books suited to a developing State have not been given due emphasis and

attention as the research base which is an important pre-condition for the development of these areas had not yet developed in most States or these agencies wherever established had not been given the freedom to operate independently of the Directorate of Education.

The NCERT being unable to cope with its function throughout India, therefore it became essential to cooperate with the State Department of Education to carry out the multifarious tasks of Education. The Council operates in collaboration with the National Board of School Education or State Council of Educational Research and Training. Most States and Union Territories transferred all subjects of educational research and training to SCERT with variations here and there while Andhra Pradesh amalgamated all the Institute's Unit and Bureau into a State Council of Educational Research and Training incorporating all the subjects which are part of an academic wing of a Department of Education. Assam, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Orissa, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal instituted or strengthened their State Institutes of Education and organisations like Educational Research and Documentation centres, Institute of Science Textbook Corporation, State Bureau of Vocational and Technical

Education and State Bureau of Counselling and Vocational Guidance. In most state, these Institutes as well as supporting organisations are completely autonomous bodies under the Chairmanship of the Minister of Education.<sup>1</sup>

#### **4.2. Justification for Constitution of a State Council of Educational Research and Training (SCERT) in Meghalaya**

With the setting up of the Autonomous State of Meghalaya, the Directorate of Public Instruction was established on 2nd April, 1970, having jurisdiction over the whole of Meghalaya excluding the areas comprising the Municipality of Shillong. Subsequently, the educational administration was transferred to the Directorate when Meghalaya became a full-fledged State on 21st January, 1972.<sup>2</sup>

Immediately after the attainment of the full-fledged statehood it was clearly recognised that the education system in the State needed drastic changes both structural and qualitative. It was felt that the educational system in the state had to be brought in line with the common educational system of the country so that the education in the State could face the challenges thrown by the advancement and economic development. Secondly, there was a strong felt need  
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1. Notings of the Director of Public Instruction (unpublished records), 1975.
2. "Educational Administration, Meghalaya", 1980, NIEPA, New Delhi-16.

for qualitative improvement in educational administration, educational techniques and methods of teaching in general.

Keeping in tune with the modern thinking it was recognised by the Education Department then that the processes and changing values of education had become increasingly complex in our country whereas the Meghalaya education system was geared to the old system of thought where no weightage was being given to the learner's ability, the teacher's capacity and the like. No stress was given to the teaching methods and techniques. Moreover, there were schools with high enrolment and small class size and there were schools with poor enrolment and small class size. There were administrators with differing background, varying training and experience.

As time passed, the concept of education also underwent change. It has more features. Every school subject is now viewed in terms of several possible objectives and of one or more structure which serve to organise its content either for use or for learning or for both. Each learner in modern education is conceived as having relevant characteristics. His cognitive development is important and includes variables as his mode of approach or withdrawal from new phenomena, his views of the world around him, his role concept, value concept and his problem-solving abilities. His development includes his interest, motivation, aptitude, attitude towards

education and towards work, his achievement needs, his self-confidence, the degree to which he identifies himself with others and the like. The concept of teaching methods has undergone radical elaboration and the concept of the teacher is also expanding. In addition, several new features have emerged in the concept of education. The school is no longer the place where the teachers and students assemble for classes but a social institution where aspirations are either encouraged or dampened, communication is facilitated or distorted, activities are encouraged giving opportunity for development of every student.

Educational research was, therefore, felt no longer guided by simple models but by a complex variation where the variables involved are to be differentiated. The field of educational research requires much more systematic enquiry than was deemed necessary in earlier years. Broadly, the functions of educational research was to find definite answers to questions about what and how to teach and correspondingly how to organise and administer schools to assess programmes, procedures and material so as to indicate what educational result are attained and this could be done through the establishment of SCERT.

Besides research, educational training was one of the neglected areas in Meghalaya. With 80 per cent of our teachers untrained, the drop out rate was as high as 79.9 per

cent, 36.8 per cent and 28.6 per cent at the Primary, Middle and High School respectively (according to selected educational statistics 1976) and with a large number of under qualified teachers, the prospect of education appeared anything but bright. Thus it was strongly felt that the establishment of SCERT will be designed to take up educational training as one of its important function. To provide adequate and proper direction of education through the medium of the SCERT was strongly felt by the Education Department. Thus, considering the varied problems that were already there and that were bound to arise in the context of rapid educational change and expansion, it was felt necessary to establish an agency for research in education in the State. It was, therefore, proposed to constitute a State Council of Educational Research and Training in Meghalaya on the model of Andhra Pradesh combining all areas of educational research and training in one institution.

It was also proposed to have a Planning and Advisory Committee to advise the council set up which consist of the following :

1. Minister of Education - Chairman
2. Minister of State, Education - Vice-Chairman
3. Secretary to the Government of Meghalaya - Member
4. Director of Public Instruction - Member Secretary
5. Director, SCERT - Member Joint Secretary

6. Secretary, MBOSE - Member
7. One representative from NCERT - Member
8. One representative from NEHU - Member
9. One Inspector of Schools
10. One Head of a Teachers Training Institute - Member
11. One Headmaster/Headmistress of a High School - Member
12. Five educationists.

The aims and objectives of the Council were (a) Research and Development; (b) Training and extension; (c) Production and dissemination of curriculum materials.

In the proposal, SCERT was planned to have five faculties at the initial stage. These were Departments of (i) Education, (ii) Science, (iii) Curriculum, Text-Book Publication, (iv) Planning, Statistics and Research and (v) Vocational and Technical Education. Having examined the need for the staff to man the Council, it was found that there was problem to get necessary fund to have all the personnel required during the Fifth Plan period, and the difficulty to get a trained personnel from outside the State. It was proposed then that the Department will locate suitable officer to take charge of the Council as its Director from within the State. It was, however, proposed to request the NCERT to depute a suitable senior person for a short period to organise the Council so that establishment of the Council

could be done by an experienced hand. It was also proposed that the Planning and Statistical Cell, the Bureau for Counselling and Vocational Guidance, the Science Promotion Cell which were already started under the Directorate of Public Instruction will be transferred to the Council to form the initial core of the faculties dealing with those subjects.

#### **4.3. Constitution of the SCERT**

The proposal was submitted and was approved by the Planning Commission under Plan Scheme. The funds were made available during the Fifth Plan period for the development of the Council. After having approved by the Commission, the Finance Department was also consulted and it agreed on the departments proposed. Regarding supporting staff, the Directorate should work out in consultation with the Education Department. As a result of the SCERT establishment, the surplus staff in the Directorate should be first transferred to the Council.

The proposal was then placed before the Cabinet for decision and approval on-(1) the constitution of the State Council of Educational Research and Training with headquarters at Shillong, as proposed by the Education Department and (2) to authorise the Education Department in consultation with the Personnel Department to take steps to

appoint a Director of the Council either on contract from suitable local candidates or on deputation from NCERT.<sup>1</sup>

The cabinet approved the constitution of SCERT to be headed by a Director as per its decision dated 28th March, 1976.<sup>2</sup> The official notification came only in June 1976 as per the Department letter No.EDN.13/75/23 dated 28th June 1976 (A copy is placed at Appendix-I). The notification also came for constitution of the Planning and Advisory Committee. The Committee was formed under the chairmanship of the Minister of Education for a period of one year (vide letter No.EDN.13/75/24 dated 28th June, 1976 (Appendix)).

As the Department could not get a Director from NCERT, the post of Officer-on-Special Duty was created on 16.9.76<sup>3</sup> as an adhoc arrangement so that the Council could be started.

The SCERT was established on October 4, 1976, when Shri C. Wolflang, Officer-on-Special Duty (OSD) joined to organise the Council. He also took charge as the Head of Department, Planning, Statistics and Research. The Council was formally inaugurated by the then Finance Minister, Mr. B.B. Lyngdoh on

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1. Unpublished record, 1975.
  2. Memorandum of the Education Department on the Constitution of SCERT (unpublished record).
  3. Unpublished record 1976.



8.11.76 and was housed in the old Government High School Building, Mawkhar, Shillong.

On February 1978, the Council shifted from the old Government High School building to Mawkhar Christian High School building which shifted back after a few months. The OSD was holding the rank of Deputy Director and was running the office with a skeleton staff drawn from Directorate of Public Instruction Office, Meghalaya, Shillong.

#### **4.4. Main Functions of SCERT**

The SCERT has the following main broad functions to perform :

1. Research and development
2. Training and extension
3. Production and dissemination of curriculum materials.

These broad functions may be stated under the following objectives :

- a) To serve as a liaison between the State Department of Education, the NCERT and the Ministry of Education in academic matters.
- b) To serve as a link between School education and University education.

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c) To organise seminars for discussion of the problems of Primary and Secondary Education including technical education.

d) To publish handouts and prepare working papers on educational innovations and current educational problems.

e) To plan and organise in-service training courses for science and allied teachers.

f) To conduct in-service programmes to develop aptitude for action research for teachers.

g) To prepare instructional materials in science including teaching aids and improvised science apparatus to strengthen science instructions in schools.

h) To provide opportunities for discussion of organisation and representation of subject matter and other items in order to produce good and inexpensive text books.

i) To prepare and publish supplementary reading materials for use of pupils.

j) To undertake necessary studies for improvement of quality of textbooks.

k) To provide vocational/career guidance to students.

l) To conduct short-term courses/workshops for teachers in the use/preparation of audio-visual materials.

m) Formulation of school complexes and study circles.

n) To educate the teachers through extension lectures over new educational trends.

o) To enlighten teachers over any problem on request from schools.

p) To organise seminars for teachers to help them keep pace in their professional knowledge.

q) To arrange conferences with Principals, Headmasters and other educationists for quality improvement of education.

r) To conduct various surveys in education.

s) To pay special attention towards improving the educational standard of tribal students through proper academic guidance and help creation of awareness and by other means.

t) To examine the curriculum from time to time, to ensure relevance and improvement.

u) To conduct study in evaluation and examination reforms to ensure greater accuracy, improvement and standardisation.

v) To take up such other schemes as will lead to greater efficiency in all spheres of academic works.

#### **4.5. Development of SCERT in Meghalaya**

The State Council of Educational Research and Training (SCERT) Meghalaya, Shillong, started functioning, when the Officer-on-Special Duty (OSD) assumed charge with a skeleton staff. The posts of Upper Division Assistant, Accountant,

Lower Division Assistant, Stenographer, a Typist, two Peons, a Chowkidar were created on 10.1.76.<sup>1</sup>

The Bureau for Counselling and Vocational Guidance which was functioning under the Directorate of Public Instruction, Shillong, was transferred to SCERT as per the initial proposal. But the other branches which were also proposed to be transferred continued to function under the Directorate of Public Instruction, Meghalaya. So, initially only two departments were functioning. These were (i) Department or Bureau of Vocational Guidance and Counselling which was manned by a Counsellor; (ii) Department of Planning, Statistics and Research when the OSD joined as the Head of the Department.

Then the academic departments of Education, History, Mathematics, Physics, Statistics and Zoology were created on 24.9.77. At the same time, the posts of Research Assistants, Library Assistant, Typist-2, Project Operator-1, Peon-1, Cleaner-1, Driver-1 were created.<sup>2</sup> The Council was thus expanded when, Lecturers in Education, History, Physics, English, Mathematics, Planning and Statistics joined in 1978.

In September 1978, Educational Technology Cell was set up under the centrally sponsored scheme with a view to

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1. Unpublished record of SCERT.

2. Ibid.

bringing about a qualitative improvement of education in the State by promoting an integrated use of mass media and instructional technology at all levels of school education. Accordingly, the post of Officer in-Charge and Programme-Cum-Script Writers-2 (PSCW), created on 26.5.78 were filled up. Immediately after that, the posts of Superintendents, Stenotypists, Technical Assistants, Peon-1 and Driver-1 of the Educational Technology Cell were created on 14.9.78.

In the meanwhile, the Government had sanctioned the post of Secretary, SCERT in the rank of Under Secretary of the Meghalaya Secretariat Service on 14.9.79. The Secretary looks after the administrative matters in the Council. In the same year, the Department of Science expanded when a Lecturer in Zoology joined the Department.

The Department of Education expanded with the joining of 2 lecturers in 1980 whose posts were created on 6.10.79 along with ministerial posts of UDA and Typist.

By the end of 1980, the Council had the following departments with the following officers and staff in position<sup>1</sup> :

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1. Unpublished SCERT Report 1980.

<u>Department/Unit</u>	<u>Posts</u>
1. Education	Lecturers - 3
2. History	Lecturer - 1
3. Vocational Guidance and Counselling	Counsellor -1
4. Science	Lecturer - 2
5. Educational Technology Cell	Officer-in- Charge - 1 PSCW - 2
6. Planning	Lecturer - 1
7. Statistics	Lecturer - 1
8. English	Lecturer - 1
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	Total 13
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In the administrative side, a Secretary was assisted by the following staff :

1. Research Assistant	-	1
2. Technical Assistant	-	1
3. Statistical Assistant	-	1
4. UDA	-	2
5. LDA	-	2
6. Typist	-	4
7. Stenographer	-	1
8. Steno-Typist	-	1
9. Peon	-	4
10. Chowkidar	-	1
11. Project Operator	-	1
12. Driver	-	1
13. Cleaner	-	1
	<hr/>	
	Total	21
	<hr/>	

The total strength of the Council came to 13 officers including the OSD and the Secretary and 21 secretarial staff.

More posts were moved to the government to deal with the increasing load of work assigned to the SCERT and the large number of schemes which were undertaken to modernise the school education in Meghalaya which were concurred subsequently.

The Bureau of Vocational Guidance and Counselling expanded when the two Counsellors joined in 1981 against the posts created on 27.9.90 along with one post of driver during the year.

The post of OSD was upgraded to the post of Director SCERT in the rank of Joint DPI on 16.3.81 and the incumbent was appointed<sup>1</sup> through the interview conducted by the Meghalaya Public Service Commission, Shillong. Subsequently, the post of Lecturer in Mathematics was filled up in 1981. During the year, the Council moved to the Government for creation of Evaluation Unit since evaluation forms part of educational reforms and needs to be taken up. As such, two posts of Assistant Lecturer were moved and sanction was received on 15.1.82 along with another post of Research Assistant and the post of driver Evaluation Unit was added up to the Council and the unit became functional when the two Assistant Lecturers joined the post. The posts of Assistant Lecturers were upgraded to Lecturer post very recently.

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1. Report of SCERT, Meghalaya, Shillong, 1983.

During 1983, the Education Unit was again expanded with the creation of 3 more posts on 18.11.83. The three lecturers joined in March 1985 to make the total number of six lecturers in the Unit. The same year, i.e. 1983, another post of driver, chowkidar was created and filled up.

The amount of Translation works that had to be undertaken in the area of curriculum development and development of instructional materials was increasing and manpower was needed for this purpose. The Council proposed two posts of translators and the proposals were accepted. The unit of translation was created on 18.8.84 (unpublished) with the sanctioning of two posts of translators. The work started in earnestness when the two Translators Khasi and Garo joined the Department.

During the year, one post of English was also created for District units<sup>1</sup> of the SCERT on 19.4.84. The post was posted at headquarters.

The posts of Cleaner and Sweeper on casual basis was also sanctioned by the Government on 2.8.85. During the same year, the Science Unit was expanded by the creation of two lecturer posts in Botany and Chemistry on 23.8.85. The post of LDA was again sanctioned on 4.3.86.

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1. Unpublished record of SCERT, 1984.

During 1987, another post of Lecturer, English District Units was sanctioned and posted at headquarters on 28.3.87 along with one post of Driver and Cleaner each.

In 1989, the post of Director SCERT was upgraded and is equivalent to the rank of additional DPI and he functions under the overall supervision of the DPI.

The post of OSD which remained vacant for several years was upgraded to the rank of Deputy Director of Public Instruction and designated as additional Director (SCERT) in 1994. The Officer-in-Charge Educational Technology Cell was promoted as Additional Director (SCERT) and she joined the post in 1994.

At present the SCERT, Meghalaya is headed by a Director (SCERT) who is in the rank of Additional DPI. Below the Director (SCERT) is the post of additional Director SCERT who is of the rank of Deputy DPI. Below the post of additional Director (SCERT) are the following academic officers in different units with their designations.

<u>Designation</u>	<u>Unit</u>	<u>Sanctioned Post</u>	<u>Existing Post</u>
1. Officer-in-Charge	Educational Technology Cell	1	+*
Programme-cum-Script Writer (PCSW)	Technology Cell	3	2***
2. Lecturers	Education	6	5**
3. Lecturers	English	3	2***
4. Lecturers	Evaluation	2	1***

<u>Designation</u>	<u>Unit</u>	<u>Sanctioned Post</u>	<u>Existing Post</u>
5. Counsellors	Educational and Vocational Guidance	3	3
6. Lecturer	History	1	1
7. Lecturer	Mathematics	1	-***
8. Lecturer	Planning	1	-***
9. Lecturers	Science	4	4
10. Lecturer	Statistics	1	1
11. Translators	Translation	2	2
		28	21

\* Vacancy due to the promotion of the incumbent  
 \*\* Due to the death of the incumbent  
 \*\*\* Deputation on lien.

It is worth to mention that the academic officers including the Director (SCERT) and Additional Director (SCERT) are well-qualified having post-graduate degrees in their respective subject-areas. Of 30 officers (including Director and Additional Director SCERT) only 8 officers are not Bachelors of Education. The Director SCERT has a Doctoral Degree. It is also worth-mentioning that eight academic officers including the Director (SCERT) and Additional Director SCERT had also received training abroad in the different Universities in France, England and Australia.<sup>1</sup>

1. Records of SCERT (unpublished) 1986-87.

On the administrative side, there is the post of the Secretary, SCERT which is filled-up from the Meghalaya Secretariat Service and is of the rank of Under-Secretary. The Secretary SCERT looks after administration of the office and is supported by the Superintendent and a number of supporting staff as below :

<u>Sl. No.</u>	<u>Designation</u>	<u>No. of Existing Post</u>
1	Superintendent	1
2	Research Assistant (RA)	2
3	Statistical Assistant (SA)	1
4	Technical Assistant (TA)	2
5	UDA/Accountant	2
6	LDA	5
7	Typist	6
8	Peon	10
9	Chowkidar	2
10	Project Operator	1
11	Driver	6
12	Cleaner	2

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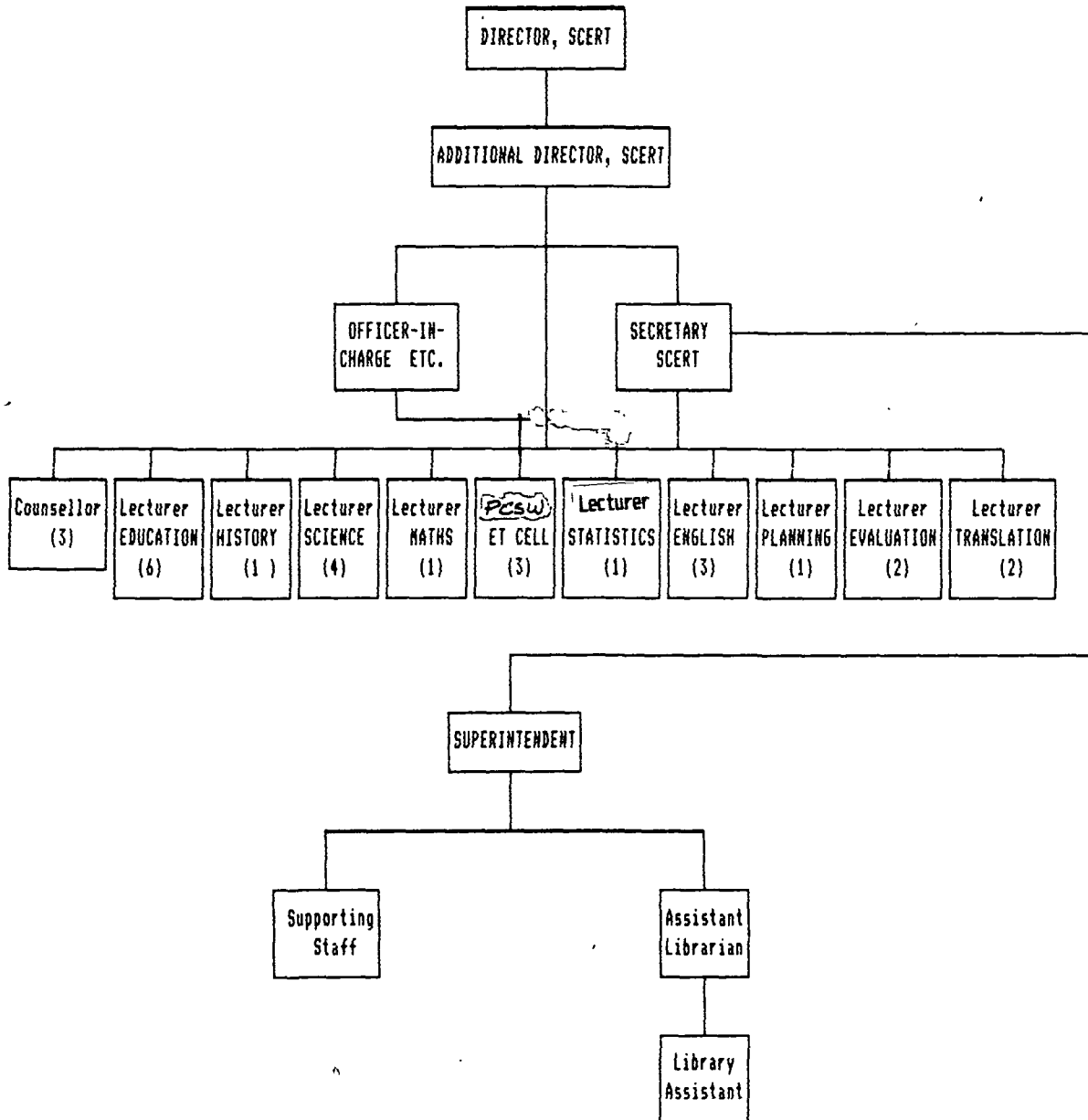
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The SCERT has a small library of its own which is manned by the qualified Assistant Librarian who is assisted by a Library Assistant.

The existing set-up of the SCERT may be depicted in the following organogram below :

Figure-5

ORGANOGRAM OF THE STATE COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING (SCERT)



Source: Office of the Director of State Council of Educational Research and Training, Meghalaya, Shillong.

The organogram of the SCERT, Meghalaya suggests that the expansion of SCERT in a span of 20 years has been very encouraging. The size of the organisation has grown up vertically and horizontally. From two departments (units) at the start it has multiplied to as many as eleven departments at present and the number of staff has grown up from a handful of staff in the beginning to a strength of seventy three officers and secretarial staff.

#### 4.6. Expenditure of SCERT

Expenditure-wise, the SCERT has also expanded tremendously. The budget allocation for SCERT staff during 1976-77 when SCERT was first set up and now i.e. 1995-96, is shown in a table below for comparison purpose :

#### 4.01 : Expenditure Pattern of SCERT

Budget allocation for	1976-77†	1978-79†	1979-80		1995-96	
			Non-Plan	Plan	Non-Plan	Plan
a) Pay/Salaries			2,00,000		38,32,000	60,000
b) Wages			2,000		25,000	-
c) Travelling expenses	2,00,000	4,20,000	4,000	2,90,000	32,000	1,00,000
d) Office expenses	-	-	1,15,000		1,96,000	2,10,000
e) Rent Rate and Taxes			4,000		32,000	50,000
f) Publication			39,000		42,000	-
g) Other charges			2,000		7,000	80,000
<b>Total</b>	<b>2,00,000</b>	<b>4,20,000</b>	<b>3,66,000</b>	<b>2,90,000</b>	<b>41,66,000</b>	<b>5,00,000</b>

† No break-up in the budget allocation.

The table above shows the increase of expenditure for meeting the expenses of the staff of SCERT. During 1976-77, the amount is shown as a lumpsum amount of Rs.2,00,000/-<sup>1</sup> (Rupees two lakhs) only which increased to Rs.4,20,000/- (Rupees four lakhs and twenty thousand) more than double after two years, i.e. 1978-79<sup>2</sup>. From 1979-80, the break-up of expenditure was available for Non-Plan as shown in the table above. But the Plan expenditure is shown as lumpsum amount of Rs.2,90,000/- (Rupees two lakhs and ninety thousand). The amount has increased from Rs.2,90,000/- during 1979-80 to Rs.5,00,000/- during 1995-96 and Non-Plan expenditure has increased from Rs.3,66,000/- during 1979-80 to Rs.41,66,000/- during 1995-96. This shows an increase of (Rs.44,66,000/-) sevenfold for both Plan and Non-Plan during 1979-80 to 1995-96 and an increase of twenty-three fold from 1976-77 to 1995-96, a span of nineteen years.

The budget allocation for implementation of the various only programmes and schemes of SCERT was also shown separately in the Budget Estimate. During 1976-77<sup>3</sup> the expenditure was Rs.56,650/- (Fifty six thousand, six hundred

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1. Unpublished SCERT Office records 1976-77, SCERT, Shillong.
  2. Unpublished SCERT Office records 1978-79, 1979-80.
  3. Unpublished SCERT Office Record 1976-77.

and fifty) only which has increased to Rs.1,10,000/- (Rupees one lakh ten thousand) during 1979-80 and has increased to Rs.24,04,000/- (Rupees twenty four lakhs four thousand) during 1995-96<sup>1</sup>. There is a difference of Rs.23,47,350/- (Rupees twenty three lakhs forty seven thousand three hundred and fifty between 1976-77 and 1995-96, an increase of forty two fold in a span of nineteen years.

#### **4.7. The Role of SCERT, Meghalaya**

The SCERT in Meghalaya was set-up in 1976 to provide academic support to the Education Department and to tackle the immediate and pressing problems of school education with the sole aim of achieving academic quality in the school education.

The SCERT is assuming the role of the academic wing of the Directorate of Education. Considering the special problems faced by the State, SCERT assumed a very important role. It deals with all the academic matters of school education and provides expertise in respect of teacher education also. It functions as an adjunct of the Directorate, so close link is established between the two. The SCERT has to route all the schemes and programmes to the Director of Public Instruction before they finally go to the  
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1. Extract of Budget allocation and Action-cum-Work Calendar, SCERT, 1995-96.

government for necessary sanction. The Secretariat also sends all the matters to SCERT through the Directorate.

In an attempt to make the role effective and useful it was necessary to prepare a proper plan for gradual development of the different functions and the plan of expansion in terms of functions and use of resources. Since its inception, the SCERT has been trying its best to improve the quality of education and took up innovative programmes like updating of curriculum for school education and for Teacher education curriculum. It also developed instructional materials for use of the teachers and the students and various programmes like improvement of science and mathematics, orientations of teachers examination reforms and the like in the field of education. In the implementation of various programmes, the SCERT establishes close links with the NCERT, UNICEF, Central Institute of Educational Technology (CIET), the Central Institute of English and Foreign Languages (CIEFL), the North-Eastern Council (NEC), the Centre for Cultural Resource and Training (CCRT), the Regional College of Education (RCE), the North-Eastern Hill University (NEHU), the different colleges in the State and the Meghalaya Board of School Education (MBOSE). The SCERT also establishes a good rapport with the District Education Officers and the people in the field — the schools and the teachers.

The SCERT seeks the expertise of the experts in the above agencies in the implementation of the various programmes. Being the state nodal agency close coordination with the NCERT is maintained and implementation of programmes and centrally sponsored scheme is being implemented by the SCERT at the state level.

In relation to MBOSE, the SCERT provides all the expertise sought by the Board in preparation of curriculum and development of instructional materials for Primary and Secondary Schools. The MBOSE adopted the new curriculum prepared by the SCERT and all the instructional materials like the text books, guide books for teachers and work books at the primary stage. The MBOSE also seeks the SCERT expertise in the preparation and development of Teacher education curriculum and curriculum for the +2 stage.

With the important role that SCERT has to play it is strongly felt that SCERT should be strengthened in the state to enable the SCERT to take the leading role in the qualitative improvement of school education in the State.

Long before the announcement of the National Policy on Education 1986, the Meghalaya Education 1977<sup>1</sup> in its report

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1. Report of the Education Commission 1977, Directorate of Public Instruction, Meghalaya, Shillong, p.72.

stressed the need to strengthen SCERT for development of education in the State.

The announcement of the National Policy of Education 1986 and its Programme of Action (POA) and the modification taken in 1992 along with its POA have repeatedly stressed the importance of attending to immediate needs of teachers and their trainings in which SCERT must play a very important role especially in the context of the newly established District Institute of Education and Training (DIETS).

#### **4.8. Establishment of DIET in Meghalaya**

It is interesting to note that the Government of Meghalaya has decided to upgrade some of the existing Basic Training Centre (BTC) to DIET and to set up newly established DIETS for pre-service and in-service training of elementary school teachers.

In 1992, three Basic Training Centres (BTCs) were upgraded. These are BTC Thadlaskein, BTC Resubelpara and Normal Training School Cherrapunjee. Three newly established DIETs were set up in areas where there are no existing training institutions. These are located at Nongstoin, Nongpoh and Baghmara. Buildings are under progress and academic session is expected to start from the next academic year 1996-97.

A scheme for strengthening the SCERT was also stressed by the POA 1992<sup>1</sup> which strongly recommended to make SCERT an independent body with responsibility to oversee DIETs, District Resource Units (DRUS) and other Elementary Institutions (ETIES). With the establishment of DIETS, SCERT will function as the nodal agency in the State.

In accordance with the recommendation of the National Policy of Education 1986 and Programme of Action 1992, the State Government has constituted a Task Force for strengthening of SCERT<sup>2</sup> in the State as per the Government Notification No.EDN.172/92/9 dated 5th August, 1992, consisting of the following members :

1. Director of Public Instruction, Meghalaya - Chairman
2. Three eminent Educationists/Academicians - Member
  - 1) Shri I.K. Sangma - Member  
Retd. Additional Director
  - 2) Smt. E.N. Shullai - Member  
Retd. Inspector of Schools
  - 3) Smt. G. Rynjah - Member  
Retd. Headmistress, Pine Mount School
3. Dr. M.M. Pandey, Field Adviser, NCERT - Member
4. Representative of the Regional College of Education, Bhubaneswar - Member
5. Representative of Chief Engineer, PWD (Buildings) not below the level of S.E. - Member

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1. Programme of Action, 1992, NCERT, New Delhi-16.
  2. Unpublished SCERT report, 1995.

6. Director, State Council of Educational Research and Training - Member

The term of office is three years.

The functions of the Task Force are as follows :

1. Appraisal of Status-cum-Appraisal Report on the SCERT.

2. Examining the need for structural revamp.

3. Examining the kind of structural changes, SCERT needs and formulating recommendation thereon, inter alia :

i) Constitution of the Council into an autonomous body and its relationship with the State Government.

ii) Organisational structure and staffing pattern.

iii) Levels and pay-scales of various categories of posts, other benefits, terms, career pattern and service condition proposed for the faculty.

iv) Eligibility criteria for appointment to various posts, etc.

v) Proposed arrangement for faculty development.

The Task Force has given its recommendation and submitted to the State Government as per the letter Memo No.SCERT/MISC/107/92/45 dated 10.12.93.<sup>1</sup> Its main recommendation is that SCERT should be made independent of

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1. Unpublished papers of Education Department, 1993

the Directorate of Public Instruction and be made as a separate Directorate with its own organisational structure.

#### The Proposed Organisational Structure

The SCERT is to be reorganised and the following units be established :

- 1) Planning, Management and Research
- 2) Teacher Education
- 3) Non-formal and Adult Education
- 4) Work Experience
- 5) Art and Aesthetic Education
- 6) Evaluation and Examination Reforms
- 7) Mathematics, Statistics and Computer Education
- 8) Health and Physical Education
- 9) Physical Science
- 10) Life Science
- 11) Language
- 12) Social Science
- 13) Counselling and Vocational Guidance
- 14) Educational Technology
- 15) Vocational Education (2)
- 16) Documentation, Dissemination and Publication
- 17) Curriculum and Materials Development.

The Task force also recommended the staffing pattern as below :

### Staffing Patterns

To streamline the functioning of each of the above departments/units and to provide promotional avenues to the officers, the following package is recommended :

There should be 6(six) grades available to the Lecturers/Counsellors/ Programme-cum-Script-Writers/Translators as under :.1s 1

- i) Lecturers/Counsellors/Translators/PCSWs  
- Rs.2000-4150/- (Existing designation)
- ii) Senior Lecturers  
- Rs.2300-4385/- (New designation)
- iii) Selection Grade Lecturers etc.  
- Rs.2600-4575/- (New designation)
- iv) a) Deputy Director (3 posts)  
- Rs.3000-4800/- (New designation)  
  
b) Joint Director (3 posts)  
- Rs.3500-5180/- (New designation)
- v) Additional Director  
- Rs.3900-5400/- (New designation)
- vi) Director - Rs.4200-5800/- (Existing designation)

The promotion to the next higher post will be as follows :

a) A Lecturer/Counsellor/Translator/PCSW, who has served for a period of 8 years will be entitled for a higher time scale of Rs.2300-4385 and designated as Senior Lecturers/Counsellors/Translators/PCSW.

b) A Lecturer/Counsellor/Translator/PCSW who has served in the time scale of Rs.2600-4575/- and designated as Selection Grade Lecturer/Counsellor/Translator/PCSW.

c) There will be 3(three) posts of Deputy Director as well as three posts of Joint Directors to look after (i) Research, (ii) Training and (iii) Administration.

d) There shall be one post of Additional Director to be filled up from amongst the senior most Joint Director.

e) The present post of Director SCERT which is equivalent to the rank of full fledged Director at par with Director of Public Instruction. Subsequently, the post of Direct SCERT be filled up by the Additional Director SCERT.

The above posts (c), (d) and (e) be appointed through DPC constituted for filling up of posts from amongst SCERT's officers.

With the setting up of DIETs in the State and of the establishment of National Open School System Cell under

SCERT, the work load and responsibilities of the SCERT has enormously increased.

It is interesting to note that the Government of India have committed to give assistance to State Government on 50:50 basis subject to maximum of 50 lakhs for strengthening SCERT. This was conveyed as per the Government of India D.O. No.F-49-1/91-TE-II dated 4th August 1993 forwarded to the DPI Meghalaya under Government letter No.EDN.84/88/325 dated 28.6.94.<sup>1</sup>

On the basis of the commitment of the Government of India to give assistance to State Government on a 50:50 basis, proposals amounting to Rs.1,05,59,103.46 were forwarded to the Government in the Education Department as per the SCERT letter No.SCERT/Misc/107/92/57 dated 14.9.94.<sup>2</sup> Those proposals were based on the recommendation of the Task Force and given as under. This proposal was resubmitted to the Government during 1995-96.

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1. Unpublished Record of DPI's Office, 1994.

2. Unpublished Record of SCERT, Meghalaya, Shillong, 1995.

i) Physical Infrastructure (including Construction of Hostels, Guest House, etc.	-	Rs.98,84,691.46
ii) Training Programme and other activities	-	Rs. 21,000.00
iii) Staff structure including upgradation to senior and selection grades, creation of posts of Jt. Director (SCERT) etc.	-	Rs. 6,53,412.00
		Total
		Rs.1,05,59,103.46

(Rupees one crore, five lakhs, fifty-nine thousand, one hundred and five and paise forty six only).

It may be mentioned that the former Union Minister of Human Resources Development during his visit to Shillong in the month of July 1995 have announced publicly about the Special Package of the North East for development of education that a sum of Rs.187.90 crores was set aside with a special emphasis on the scheme 'Operation Blackboard' for strengthening SCERT.

#### 4.9. Conclusion

The foregoing discussion on the development of the SCERT shows that the body has assumed the role of an academic catalyst in developing a healthy and strong school system in the State of Meghalaya. The future course of action chartered by the Council shows its concern and commitment towards the qualitative improvement of school education in the State. In

the following chapter, a survey of the work done by SCERT and an assessment of their effects will be taken up.

**Chapter V**

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**ANALYSIS OF PROGRAMMES AND  
ACTIVITIES OF THE SCERT**

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## **5.0. Introduction**

The State Council of Educational Research and Training (SCERT) Meghalaya, was established on October 4, 1976, to provide academic support to the State Education Department with the main functions of research, training and curriculum development.

The main task before the SCERT Meghalaya, as soon as it was instituted was to tackle the problems of school education in the State. The changing socio-economic structure has necessitated reorganisation and reorientation through researches and investigations of the immediate and pressing problems of school education in order to train manpower to meet the changing situation. A contact with the people in the field was considered important as this enables them to come forward with their problems and difficulties. This was very beneficial to the Council for future planning of various programmes and activities. One way of coming into direct contact with them was through seminars and conferences.

Thus the SCERT organised many seminars on various aspects of education. These are mentioned below.

### **5.0.1. Seminars**

i) The Seminar of the Principals, Headmasters/Headmistresses was the first of its kind held on 22nd

December 1976<sup>1</sup> at the Seminar Hall at the State Central Library, Shillong. The main objectives of the seminar was to apprise the participants of the New Pattern of Education as evolved at the national level and to explain the necessity of its implementation to make education more fruitful to meet the growing needs and aspirations and demands of the modern society. The Director of Public Instruction pinpointed that it was increasingly difficult to provide good education because of the quantitative expansion but pointed out that the problems had to be tackled from various angles like curricular development, in-service trainings, extension lectures course to the teachers and the like to improve the quality of teaching.

There was an active participation from the participants who expressed the shortage of standard textbooks at various levels. The Secretary, MBOSE explained that the shortage of textbooks was due to the fact that Assam had followed a new syllabus and publishers had stopped publishing those old textbooks which Meghalaya was still using till then. The participants suggested that a unit be set up in SCERT to select textbooks for the benefit of all schools.

The matter of improving Science and Mathematics and English also cropped up in the discussion. The opinion of the -----

1. SCERT - State Council of Educational Research and Training, Meghalaya, Shillong, 1976-77, Vol.I, pp. 16-17.

participants was to give in-service trainings to the existing teachers specially in Science and Mathematics.

ii) Another seminar was held on the 2nd May, 1977<sup>1</sup> on problem and prospects of school education in Meghalaya — the new pattern of Education and Technical Education. Papers were presented and discussed at length by the participants. In the Seminar it was suggested that necessary infrastructure be provided for all-round development of the rural schools. Employment of more trained teachers be done and the existing untrained ones should be sent for training to obtain better result. It has also been suggested that the Education Department should have experienced inspecting staff to whom a limited number of school should be allotted for inspection to be able to give justice for all-round uniformity in education. As regards the urban school a detailed analysis of their number, the different types and medium of instruction, their enrolment, should be done with the help of the State Council of Educational Research and Training and the North-Eastern Hill University (NEHU) has been sought for imparting training in administration..

It was also expressed that the syllabi was examination based and do not include any vocational subjects. Co-curricular activities do form a part of the regular school

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1. SCERT Newsletter, 1976-77, Meghalaya, Shillong.

programme. Very few schools have a good library. The various papers on which discussions were held were (i) a Paper on overhauling of the school system on the basis of national context; (ii) a Paper on problems and possibilities of Technical Education in Meghalaya; (iii) a Paper on content and techniques of extension programmes by NEHU and (iv) a Paper on the importance of Mathematics, its uses; its basic problems and the role of teachers in teaching the subject. Suggestion to improve teachers and their teaching of Mathematics were also made.

iii) Another Seminar on School Education in Meghalaya was held from the 5th to 7th June 1978<sup>1</sup> at the initiative of the SCERT at Mawkhar, Shillong. This seminar was attended by Headmasters and Headmistresses in Meghalaya.

Various aspects of educational problems faced by both the rural and urban schools were discussed. The participants had shown keen interest and come up with various suggestions to improve the standard of education. It was generally agreed that to strike a balance between quantity and quality, problems had to be attacked from various angles while bearing in mind the scarce resources. The participants showed their appreciation of the seminar and training programmes that the

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1. SCERT - Seminar on School Education in Meghalaya, SCERT, June, 1978.

SCERT had been conducting and wished that the same be continued in future for qualitative improvement of the school Education.

iv) Seminars and conferences had also been conducted in fifteen different places in the State on important subjects relating to problems of education and curriculum development. Through these seminars and conferences the unknown problems of the students, teachers and educational institutions in the academic field were identified. The participants in the various seminars had expressed their confidence in the SCERT and expressed the need for in-service training for improvement of school education.

v) Seminars on Educational Technology were conducted in six different places of the State namely Shillong, Jowai, Tura, Mawkyrwat, Bagmara and Nongstoin<sup>1</sup> in 1979-80 in order to familiarise the teachers, educational administrators and instructors with the new concept, range and utility of Educational Technology in rural areas of the State.

vi) Seminar on the History of Meghalaya<sup>2</sup> was organised in July 1979 by the History Unit of the State Council of Educational Research and Training. It is a fact that the children in the schools were acquainted with Indian and World

1. Report of the ET Cell, SCERT Meghalaya, 1979-80.

2. Seminar on the History of Meghalaya, SCERT, Meghalaya, Shillong, 1980.

history but they lacked knowledge about their own state and environment. This was so because there was not enough materials on the history of Meghalaya. Since the need has arisen to introduce the History of Meghalaya right from the school level, to enlighten children about their own cultural heritage, a seminar was organised where eminent writers, scholars have either contributed papers or participated in the deliberations.

Those papers presented were compiled and a booklet entitled *History of Meghalaya* was printed and circulated to the High Schools in the State.

Based on the survey findings that the state of Science Education teaching in the State was deplorable, a seminar for the teaching of Science and Mathematics at the High School stage was held in July 1981 and suggestions for improvement of teaching of Science and Mathematics were arrived at.

vii) Seminar on the implementation of Elementary Teacher Education curriculum was held in 1985 where all Principals and Teacher Educators attended. They all welcomed the syllabus with a suggestion of the government appointing a craft teacher in each institution.

viii) Three seminars were also organised with a view to identifying problems in relation to guidance services in schools and on the necessity for educational and vocational guidance services for high schools in 1983, 1988, and 1991 by

the SCERT. These seminars were held with the main objectives of acquainting the parents, teachers about the necessity for guidance and counselling service in the schools.

ix) Seminars in different districts of the State were organised in 1986 to disseminate the research findings on wastage and stagnation. Parents/Guardians and the community elders participated in the seminars with enthusiasm.

x) Three seminars for Heads of institutions were held during 1991-92<sup>1</sup> at the district headquarters in the state namely Shillong, Jowai and Tura in connection with the implementation of the revised school curriculum in the State. These seminars served as a take-off ground for the actual work that had been taken place.

xi) A seminar was also conducted by the SCERT on the standardisation of Khasi writing in 1994<sup>2</sup> Papers on various topics were presented by renowned authors and discussed. In the seminar, many bold decisions were agreed upon like the inclusion of some of the letters in the Khasi Alphabet into the present letters in the Khasi Alphabet.

Side by side with the conferences and seminars held to ascertain the problems of education in the State, the SCERT

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1. SCERT Report, 1991-92, Government of Meghalaya, Shillong.
  2. SCERT - Seminar Papers on 'The Standardisation of Khasi Writing', SCERT, Directorate of Education, 1994.

also analysed the statistics of school education in Meghalaya during 1976-77,<sup>1</sup> and a booklet was prepared and printed. The main points discussed were made into three parts. Part-I discussed on students' enrolment, teacher-student ratio, trained and untrained teachers, training institution, HSLC results 1974 and educating the tribal students. Part-II discussed the new pattern of education and framework of school education and the system of education at the national level.

Besides other things, the analysis showed that the percentage of drop-out during and after primary stage was very high. The percentage of untrained teachers at all level was very high and most of the teachers were under qualified. The High School Leaving Certificate Result (1974) showed that the percentage of failure of private candidate was higher than the regular students. The percentage of failure was alarmingly high in Mathematics followed by English. Though the teacher-student ratio on the whole was good but there was an uneven distribution of the students enrolment which suggested that school-mapping be done to locate areas needing attention. The analysis also showed that the tribal students were mostly first generation learners and so their cognitive growth was low and their education was unplanned. Besides the

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1. SCERT - Statistical Analysis of School Education in Meghalaya 1976-77, Government of Meghalaya, Shillong.

analysis revealed that the intake capacity of the Training Institutions was not much to cover the untrained teachers in the State. The other problems identified were lack of library, laboratory and building facilities.

Besides the seminars and conferences, the SCERT also conducted many programmes and activities to provide academic support to the State Department of Education. For the sake of convenience, the working of SCERT may be viewed in terms of the three broad types of activities undertaken by it namely (i) Research and Development; (ii) Curriculum Development and (iii) Training and Extension.

#### **5.1. RESEARCH AND DEVELOPMENT**

It was realised that a system of education had to review its purpose, renovate its structure and reform its processes continuously in order to maintain its relevance and efficiency. This is the function of research and development. In this sense, research, will include all activities that lead to a better understanding of the educational problems and produce findings relevant to policy formulation and programme planning. Any activity involving information gathering and analysis contributes to this end. The processing and translation of research findings for the benefit of user groups in the system facilitates development.

This dissemination of findings and its application to the system is as important as research itself.

As far as Meghalaya is concerned educational research is in its infancy. Systematic investigations and studies into the problems have not been conducted by the education system in the State. In fact, even a proper identification of these problems is yet to be undertaken. As a first step, it is felt that it will be useful to make a systematic effort to identify the important problems in the field for research and study.

As pointed out by the then Finance Minister of Meghalaya, Shri B.B. Lyngdoh<sup>1</sup> in his inaugural address during the inauguration of the SCERT on 8th October, 1976, the term educational research should be restricted to systematic studies to provide educators with more effective means of attaining educational goals. It does not include the routine activity of applying what it is already known or of teaching in the usual sense of the word but it is reserved to those activities designed to discover facts that will make the educational progress more effective.

As an academic wing SCERT has a very heavy responsibility of analysing the problems of education in the State and in promoting and encouraging research activities  
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1. State Council of Educational Research and Training Meghalaya, 1976-77, Government of Meghalaya, Vol.I, No.I.

including surveys so that scientific measures could be taken to make education more realistic. The following were the activities done under survey and research and these can be broadly classified as under :

a) Studies on School Education

i) A survey on the position of teaching of Science and Mathematics.

ii) A sample survey of the location of schools 1981-1982.

iii) An exploratory survey on the establishment of model vocational schools at Jengjal in West Garo Hills, Bajengdoba in East Garo Hills and Sonapahar in West Khasi Hills.

b) Curriculum Studies

i) A socio-economic survey to assess the educational needs of the communities and to determine relevant need-based and meaningful educational curricula suited to the requirement of disadvantaged section of the society.

c) Studies on Educational and Vocational Needs of the Students

i) A preliminary survey on manpower requirement and planning.

ii) A study on Guidance and Counselling Services in relation to educational and vocational aspirations of High School students.

iii) Parental attitude towards children's educational aspiration.

d) Studies on Wastage and Stagnation

i) A survey and seminar on wastage and stagnation in 1985.

ii) A statistical study on wastage and stagnation at primary level in Meghalaya.

iii) A study on wastage and stagnation at primary level.

e) Classroom Improvement Studies

i) Need assessment study for educational television (ETV) and teaching aids.

ii) A comparative study of the organisational climate and teacher morale.

f) Studies on Students Performance in the Examination

i) Analysis of HSLC examination results.

ii) Causes of failure in Science, Mathematics and English.

The objectives of the above surveys and research studies, the methods and techniques used and their major findings are presented in the following sections :

### 5.1:1.1 Studies on School Education

1) A survey on the Position of Teaching Science and Mathematics<sup>1</sup> was conducted by the SCERT in 1981 with 30th April, 1981, as the date of reference. The survey was conducted with a view to finding out the position of Science and Mathematics at the High School stage in the State.

The main objectives of the survey were :

i) to find out the number of schools with science room/laboratory facilities.

ii) to find out the number of trained and qualified teachers in Science and Mathematics at the High School level in Meghalaya.

Out of 197 High Schools in the State only 141 high schools were covered by the survey which formed the sample of the survey. The questionnaires prepared for the purpose were sent to these schools located in the different districts of the State as follows :

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1. SCERT unpublished Report 1981-82, Government of Meghalaya, Shillong.

### 5.01 : Number of High School Covered

District	No.of High Schools	High Schools Covered
East Khasi Hills	82	61
West Khasi Hills	17	8
East Khasi Hills	21	19
West Garo Hills	59	43
Jaintia Hills	18	10
Total	197	141

The data were collected on the availability of science teaching facilities and the training and qualification of teachers. The data collected were tabulated as below :

### 5.02 Availability of Facilities in School

Total No. of schools	No. of Schools covered	Schools with Laboratory facilities	Schools without Laboratory facilities
197	141	61	80
%	71.57	43.20	56.74

This table shows that the percentage of schools without laboratory facilities or science room was 56.74 per cent as against 43.26 per cent of schools with facilities. The number of trained teachers and their qualifications is given in the following table.

### 5.03 Teachers with Training and their Qualifications

Total Number	Teachers' Training		Their Qualification			
	Trained	Untrained	B.Sc. with P.U.(Sc.)	P.U.C.(Sc.)	B.A. with Maths to P.U. level	B.A. with Maths to HSLC level
141	23	118	63	27	22	29
%	16.31	83.69	44.68	19.15	15.60	20.57

The table reveals that the percentage of trained teachers in Science and Mathematics was only 16.31 per cent. It also reveals that 19.15 per cent of teachers teaching Science and Mathematics were P.U.C.(Science), 15.60 per cent were arts teachers (graduate) having Mathematics up to P.U./Intermediate level and 20.56 per cent were graduates in arts and had Mathematics upto H.S.L.C. level only. This showed that a significant number (55.32 per cent) of under qualified teachers were teaching at the High School stage and only 44.69 per cent were qualified teachers.

In the light of the survey findings the following suggestions were made to the government.<sup>1</sup>

i) Urgent need for providing every high school with science room/laboratory with minimum requirements and provision for annual recurring grants.

1. SCERT - Report of the SCERT, 1981-82, SCERT Meghalaya, Shillong.

ii) Need of increasing the number of trained teachers in Science and Mathematics in every school with better salary.

## 2. A Sample Survey of the Location of Schools

One of the immediate needs of the State is the preparation of School Mapping. School Mapping is not an educational map. It is a dynamic process of identifying logically and systematically the communities and sites where educational facilities to be provided in the plan period are to be located.

A survey<sup>1</sup> was undertaken in 1981 in the six development blocks in the State. This was an attempt aimed at indicating the facilities of schooling at the village/town level and how it will help in taking necessary steps in future to correct the imbalance of schooling facilities in the State.

The survey was planned in a phased manner and in the first phase, the following six Development Blocks were taken up :

a) Jowai (Jaintia Hills), Fynursla (East Khasi Hills), Bhoi area (now Ribhoi), Resubelpara (East Garo Hills), Dambo-Rongjeng and Rongram (West Garo Hills).

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1. School Mapping - A Sample of the Location of Schools, Vol.I, SCERT Meghalaya, Shillong, 1981.

The findings of this study suggested a reorganisation of schooling facilities in either simple cluster or compound cluster.

b) The second phase was taken in the 10 Development Blocks in 1982<sup>1</sup> with the same objective of indicating the facilities of schooling at the village/town level and how it will help in taking necessary steps in future to correct the imbalance of schooling facilities in the State. The names of these blocks were Laskein (Mynso-Raliang), Khliehriat in Jaintia Hills, Mylliem, Mawphlang, Mawryngkneng in East Khasi Hills, Mawkyrwat in West Khasi Hills, Songsak, Dadenggiri, Dalu and Betasing in Garo Hills District.

The finding suggested reorganization of existing schooling facilities.

### 3. An Exploratory Survey on the Establishment of Model Vocational Schools

On the basis of the surveys and seminars conducted it was felt that there was imbalance in the distribution of schools in the rural areas. There were many schoolless villages especially in West Khasi Hills, West Garo Hills and East Garo Hills districts. As such there was high rate of population not enrolled in the school. The discussions in the seminars showed that the habitations of these areas with no

1. School Mapping - A Sample Survey of the Location of Schools, Vol.II, SCERT, Meghalaya, Shillong, 1982.

schooling facilities had inclination toward skill works. Thus, the SCERT as a preliminary attempt conducted a survey<sup>1</sup> in three districts of the State. Three villages were selected — Jengjal in West Garo Hills, Bajengdoba in East Garo Hills and Sonapahar in West Khasi Hills to find the feasibility of establishment of model vocational schools.

The survey revealed that there were good prospects for establishment of model vocational school. This was thought of as an alternative to general education to ease the employment problems in future.

The suggestions were recommended to the government. Though the suggestions were recommended, the survey served only as good information to the government as no follow up action was taken up by the Government.

#### **5.1:1.2 Researches on Curriculum Development**

##### **i) A Socio-Economic Survey of the Communities**

A socio-economic survey<sup>2</sup> to assess the educational needs of the communities and to determine the relevant, need-based and meaningful educational curricula was conducted at Marbisu village, Mawphlang Development Block. The main

1. SCERT Report 1980, State Council of Educational Research and Training, Shillong.
2. Primary Education curriculum Renewal (PECR) - A Sample Survey Report, 1980, SCERT, Meghalaya, Shillong.

objective of the survey was to find out the detailed socio-economic condition of the village for feasibility of introducing project schools.

Ten households and one school were selected at random as the sample of the study. Interview schedule was conducted by the SCERT personnel.

The data collected was scored and tabulated. The survey revealed that :

(i) the socio-economic condition of the people was very low, and (ii) the school was located in the rural areas.

The survey data provided useful information for feasibility of introducing a Project on Primary Education Curriculum Renewal (PECR) with the main aim of developing new and relevant curricula for the primary level, i.e. I to V which can meet the educational needs of different groups of children suitable to the life style of the children and the socio-economic opportunities likely to be available to them.

#### **5.1:1.3 Studies on Educational and Vocational Needs of the Students**

##### i) A Preliminary Survey on Manpower Requirement and Planning (1980)

The survey was undertaken by the SCERT in 1980<sup>1</sup> with the

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1. SCERT Report 1980 (unpublished), Government of Meghalaya, Shillong.

main aim to find out the educational requirements of the tribal students.

The survey revealed that there was an unplanned prosecution of studies by the tribal students. The combination of subjects taken by the tribal students was unplanned as they did not know which subjects lead where. When responses were analysed, it was found that this was due to the fact that most tribal students were first generation learners. The survey also revealed that the home environment of the tribal students was devoid of any intellectual stimulating conditions.

The survey also confirmed that most of the tribal students preferred arts to science stream due to the reasons mentioned above.

Thus the Council felt that tribal students be educated on these lines and an incentive award was started in the Council to encourage the students to take up Science for meeting the requirement of scientific manpower in future.

ii) The Educational and Vocational Survey (1984)

The Council conducted this survey with the main objectives to find out the different choice of studies made to be executed by the students after completion of HSLC examination. The two major areas of study were general and vocational type of study. They were asked to indicate their choice.

Besides the main aim of the study the following specific objectives were also spelt out.

- i) to identify the different aspirations of students,
- ii) to find out whether they have planned their future,
- iii) from the findings to assist the students later through the guidance and counselling services in school and to suggest to the government ways and means to strengthen guidance services in High School.

The sample was limited to 500 students of different High School in the State. Again, it was limited to Classes-VII and VIII students of the state as one of the objectives of the study was to extend proper and relevant guidance to High School students in future.

The questionnaire was prepared and administered. The data collected were analysed and interpreted and major findings were presented as follows :

- i) More than 80 per cent prefer Science stream to Art.

- ii) 65 per cent aspire to take up vocational course.

- iii) Those who prefer science course aspire for technical courses in engineering, medicine and agriculture. Few showed liking towards business.

- iv) Students are very much aware of their future plans of the world of work. Nearly 71 per cent have stated that their future goal is to prepare themselves for future career.

v) 89 per cent have made definite choice of an occupation at their high school. 34 per cent have decided to become engineer, 27 per cent doctor and 13 per cent college teachers and 9 per cent businessmen.

vi) It is found that the occupational choice indicated by the students was their own decision in most cases.

vii) Most of the students have ranked technical and professional types of job as highest rank then followed business and last government officers and layers.

Basing mostly on the findings of the study, the investigator suggested that guidance and counselling services be strengthened and extended to young students who need constant help and attention. Headmasters and Teachers have a very important role to play in this regard.

Vocational education is a must in our school curriculum.

In the light of the suggestions made, teachers are to be well equipped with sufficient knowledge of the subjects they teach. Their teaching should be accompanied and supported by relevant information on future occupation connected with the subjects taught.

In order to do full justice towards guidance and counselling services to the students, the following suggestions were made.

1) A School should have a trained career master/mistress.

2) The career master/mistress should be provided with sufficient time to plan their work.

3) They should have an extra room for the purpose.

4) They should be on full-time basis or with the least regular teaching load to enable them to give justice to guidance and counselling service part of their work.

iii) Parental Attitude towards their Children Educational and Vocational Aspiration

This study is being conducted by the Council and the tabulation work is in progress and the report is yet to be compiled.

#### 5.1:1.4 Studies on Wastage and Stagnation

i) Survey on wastage and stagnation

This survey was conducted in 1985<sup>1</sup> with the main purpose of identifying the causes which have so far been hindering factors towards the growth and progress of elementary education in the State.

The following are the main objectives :

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1. A Report of the Survey and Seminars on Wastage and Stagnation at Primary Level, 1985, SCERT, Meghalaya, Shillong

- i) To make on the spot study of primary schools.
- ii) To contact personally the heads and teachers of the school.
- iii) To examine the school records, and
- iv) To disseminate the research finding to the community through seminars.

The survey was confined to the primary schools falling under the jurisdiction of the Laskein or Mynso-Raliang Development Block, Jaintia Hills.

The following procedures were followed :

- i) Preparation of schedules.
- ii) Canvassing and filling of schedules on the spot by the officer.
- iii) Examination of records.

The completed schedules have been duly compiled and scored. Calculation of percentages have been done in each page and findings of the study are as follows :

- i) There are as many as 39.5 per cent single teacher schools and 27.9 per cent two teacher schools.
- ii) Regarding enrolment 68.6 per cent of the schools have low enrolment.
- iii) 60.5 per cent of schools are with irregular students.
- iv) There is no provision of games and sports materials in school.

v) There is high rate of wastage and stagnation due to socio-economic conditions of parents.

vi) Dissatisfaction of teachers are mostly because of poor pay and service conditions.

vii) The relationship of teachers with School Managing Committee is not a healthy one.

viii) There is no parent-teacher meeting or association.

ix) Government's help is not substantial.

The suggestion made was mainly on improvement of parent-teacher meeting and involvement of the community in the school programmes. It was also suggested that government should take necessary action on appointment of more teachers in single teacher school and extending financial help in the form of building grant or grant for purchasing the games and play material.

As a follow-up action, the survey findings were made known to the people in general and to the teaching community in particular by organising district-wise seminars. These seminars were purposely organised to disseminate the findings. Discussions were held where the participants expressed the difficulties and offered suggestions for reducing wastage and stagnation.

ii) A Statistical Study on Wastage and Stagnation at Primary Level

In 1985, the SCERT had conducted the study to identifying the causes of wastage and stagnation at primary level with the outcome that the main causes identified were of socio-economic and educational in nature. Indications were that the wastage level was high and it was thought desirable to have a true picture of statistics on wastage and stagnation.

With this end in view, the investigator undertook a statistical study on Wastage and Stagnation at Primary level.<sup>1</sup>

The main objectives were :

- i) to get the true picture of wastage and stagnation.
- ii) to identify the causes of wastage and stagnation and schools with low/high rate of wastage.
- iii) to devise some remedial measures.

Sample

The study was limited to Primary Schools in Jaintia Hills, East Khasi Hills and East Garo Hills and also to schools with road facilities. This was due to the time-

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1. A Statistical Study on Wastage and Stagnation at Primary Level in Meghalaya State, A Report - SCERT, Meghalaya, Shillong, 1985.

factor. As such 200 primary schools located in rural areas were covered.

#### Method

- a) For conducting the study, schedule was prepared.
- b) Examination of school records and on the spot study in their respective schools.

The filled up schedules served as the main sources of data and these were analysed, interpreted and presented in a detailed report. Basing on the whole study the investigator has extracted and presented some of the major findings as follows :

- 1) It is noticed from records that students have dropped out right from second term of first year.

- 2) In the Jaintia Hills, out of 80 primary schools, 13 schools are single teacher schools, 32 two-teacher schools and 26 are three-teacher schools. About 31 schools have got more or less proper school buildings.

- 3) In East Khasi Hills out of 60 primary schools, 13 are single teacher schools and 32 two-teacher schools and 15 are three teacher-schools. In this district 35 schools are in a good condition whereas the rest are in bad condition.

- 4) In East Garo Hills, out of 60, 32 are still single teacher schools, 25 are two-teacher ones and 3 are three-teacher schools. In their case a good number of school

buildings have been renovated but too small to accommodate properly all students.

5) Majority are poorly furnished with benches and desks.

6) In many schools, classrooms are temporarily partitioned and difficult to manage the class.

7) From the records, it is noticed that even schools with three-teachers, the drop-out rate was high.

8) Non-availability of playing materials.

9) Some schools are run in the community hall or club or even a chapel because there is no school building.

Basing on the study the following suggestions were suggested :

1) The inspecting staff should visit schools more frequently to see the conditions of buildings and position of teaching staff.

2) Arrangement of additional teachers should be made on top priority specially in the case of single teacher school.

3) Schools should organise some sports, games and other functions to involve the community and to attract students to schools.

4) Frequent contacts with parents need to be established.

5) The heads should make good rapport with the managing committee.

6) It is suggested that there must be some kind of rewards for successful students and provision of games and play materials, organisation of important function and provision of medical facilities and midday meal programme.

#### **5.1:1.5 Classroom Improvement Research and Survey**

##### Need Assessment Study for Educational TV and Survey on Teaching Aids

A Need Assessment Study<sup>1</sup> for Educational TV (ETV) was conducted by the Council through the Educational Technology Cell during 1986-87. The study was undertaken to find out the areas that would benefit the target groups as groundwork activity introducing for Educational Television (ETV).

The Heads of Institutions, teachers, students, parents, and guardian in Meghalaya formed the sample for the study. The study included all three levels of school education. The study was conducted through the questionnaires which were framed in English, Khasi and Garo. The questionnaire were mailed to the schools and face to face interviews/interactions were also conducted where possible. The latter

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1. A Need Assessment Study for Educational TV (ETU) 1986-87, ET Cell, SCERT, Meghalaya, Shillong.

was useful especially in case of illiterate parents and guardians.

The major findings of the study included the following:

1) Mostly they found the timings of the programme suitable and duration was alright. Mostly (80 per cent) felt that the programme was interesting and informative but only 30 per cent found it useful for them.

2) All the members desired emphasis on Language, Science, Social studies and Mathematics.

3) Their suggestions included arranging more discussion with the heads of institutions, teachers and parents on problems faced by teacher and students and to increase the number of educational programmes.

Another survey on Teaching Aids,<sup>1</sup> was also conducted side by side with the Need assessment studies. This study was conducted to find out whether the school had sufficient teaching aids or not and also the extent of use made of teaching aids in schools.

The Heads of Institutions and teachers from the High School, Middle and Primary Schools formed the sample of this study. The study was conducted through questionnaire which were prepared in Khasi, Garo and English for each of the sample groups. Face to face interviews were also conducted

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1. Brief Report of the Feedback Studies of Educational Broadcastes, ETC Publication, No.24, ETC, SCERT.

during this study. Analysis of the data collected through the questionnaires in English, Garo and Khasi was done separately, followed by summing up for all three groups together.

The study revealed that there were no adequate teaching aids in the schools except for the Maps, Charts and Globes.

Another research was undertaken on *A Comparative Study of the Organisational Climate and Teacher Morale*<sup>1</sup> by the council to find out/identify the types or relationship prevailing among heads of institutions and teachers.

The sample of the study consisted of

i) 40 High Schools, ii) 40 Headmasters and 3) 5 teachers from each schools drawn from 5 district headquarters, 8 schools were selected from each district.

As it was difficult to know the exact number of teachers in each school, an average number of 5 teachers was selected from each school.

The method and procedure were as follows :

Tools : Two kinds of tools were used in the study, namely a) the Interview and b) the Questionnaire. The questionnaires were distributed to the Heads and teachers of respective schools and filled in questionnaires were then -----

1. SCERT, *A Comparative Study of the Organisational Climate and Teacher Morale* - A Report, 1990, Government of Meghalaya, Shillong.

collected. Data collected were scored, analysed followed by drawing out of the major findings and suggestions.

### The Major Findings

1. It is encouraging to note about the co-operation extended to each other. 92.5 per cent have been satisfied with the teachers co-operation and 65 per cent of them really satisfied with the co-operation they get from their superiors.

2. Each one is supporting the other.

3. The expression of the heads about their teachers' intellectual calibre integrity and honesty are satisfying.

4. The study also revealed the freedom given by the heads to their own teachers.

5. Teachers expressed their satisfaction over the understanding of the heads.

6. They both expressed satisfaction in teaching job.

7. The respect and recognition received from the members of the society has been expressed by a good number of heads and teachers.

8. The personal relationship is quite good in general but when taken separately 43.5 per cent expressed their dissatisfaction over their personal relationship with their heads.

9. 20 per cent showed that there was a sense of partiality shown by their heads and 35 per cent of the heads have stated that they feel a sense of partiality from teachers.

10. 46 per cent of teachers have expressed that they carry on teaching because no better opportunities are offered elsewhere and 15 per cent of the heads have expressed the same.

Basing on the study's finding some suggestions are offered :

1. The heads and teachers forming a group of persons and a team of intellectuals aiming and striving towards same goal should cooperate and encourage each other in all circumstances and should honestly work for the welfare of young students.

2. The heads should share the responsibilities with their staff and teachers alike.

3. The heads should be more flexible and show more integrity.

4. There should be no partiality shown by teachers to students.

5. Both Heads and teachers be responsive, warm and approachable in their dealings.

6. Heads and teachers have to be discouraged from showing partiality and be made responsible.

7. It is suggested that both heads and teachers should be sincere in their work as they are directly dealing with living persons who need proper care and attention.

The investigations felt that it is very desirable to keep the morale at a high level for it keeps the organisational set up running smoothly by bringing efficiency in every sphere of activity. Thus it becomes the primary responsibility for the organisational set up to develop and maintain morale of the teaching staff working in the institutions.

#### 5.1:1.6 Survey and Study on the Students' Performance

##### i) Analysis of HSLC Results

An analysis of the qualitative and quantitative performance of different schools in Meghalaya in the HSLC Examination 1974 to 1980<sup>1</sup> was done to find out the extent of failures and the subjects in which most students generally failed. The analysis revealed the high percentage of failures among tribal students and private candidates. The subject the students failed to pass in general were Mathematics followed

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1. SCERT - Analysis of the Qualitative and Quantitative Performance of the different Schools in Meghalaya in the HSLC Examination 1980-83; SCERT, Meghalaya, Shillong.

by English. This analysis was again conducted with the 1980-83<sup>1</sup> batches of students.

Follow-up action was taken by the SCERT to provide Coaching classes for tribal private students in the major subjects before appearing in the HSLC examination. Special coaching classes in Science and Mathematics are being conducted from 1979 onwards and the centres where such coaching is provided have increased from 8 centres at the beginning to 50 centres in the State which are mostly located in rural areas. The main aim of the programme is to popularise Science and Mathematics and to lay foundation in these subjects. The teaching of English is also given in these centres from 1981-82 onwards.

ii) A Study on Finding the Causes of Failure in Science, Mathematics and English

The analysis as shown above at (i) Analysis of HSLC Result pointed out that students failed to pass Science, Mathematics and English. This state of affair still dominating till date which has prompted SCERT to take up another study to identify the causes of failure and to suggest necessary measures for handling the problem.

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1. SCERT - Analysis of the Qualitative and Quantitative Performance of the different Schools in HSLC Examination, 1984, SCERT, Meghalaya, Shillong.

Accordingly, the SCERT proposed to undertake a study on finding out the causes of Science, Mathematics and English during the current year 1995-96. Sanction was received and the work is yet to start.

#### **5.1:2.0 Analysis on the Research Activities of the SCERT**

The State Council of Educational Research and Training, as an academic wing of the Education Department has been conducting many seminars, conferences, researches and surveys on the different problems of School Education in the State. The seminars and conferences conducted were on different aspects of education varying from the classroom improvement, administration of education, revision of curriculum - from primary level, secondary and at the teachers' education level and its implementation, development of instructional materials and the necessity for educational and vocational guidance, the introduction of educational technology and the like.

Through the seminars and conferences, the problems of students, teachers and the educational institutions were made known to the government. At the same time the innovative and improved instructional methods were made known to the people in general and the teaching community in particular. They are involved in the different programmes and made to feel responsible for what has been done by the government.

Besides the seminars, workshops conducted, the SCERT has also conducted surveys and research studies as mentioned earlier. These surveys and studies served a good purpose of identifying many problems faced by the teachers, students and the problems of education in general. Those problems relating to academic, steps were being made to solve them to the possible extent. Programmes and activities of the Council were planned and implemented accordingly but the problems relating to policy matters or administrative aspect, the problems were made known and strongly recommended to the government.

A close look at the research activities of the SCERT outlined below would give us the picture of how the education system is being influenced and improved through the follow-up action taken subsequently.

#### **5.1:2.1 Study on School Education**

A survey on the position of Science and Mathematics at the High School in the State revealed that i) there was urgent need of providing every high school with Science room/laboratories and ii) the need of increasing the number of trained teachers in Science and Mathematics in every school.

As a follow-up action, the SCERT had moved a scheme "Supply of Science equipments to schools preferably rural schools" during 1985-86. Under this scheme, two schools from

the five districts have been selected and these schools were located in the rural areas. Along with the material supplied to the schools the Council also gave the training accordingly for 10 days with the main objective of acquainting the teachers with the materials and their use in the classroom situation.

The SCERT, being the academic wing, could not attend to the implementation of the scheme for long due to non-availability of funds to continue the scheme. To meet the need for increasing teachers in Science and Mathematics, the government has taken action of providing science teachers to every school including rural schools.

ii) A Sample Survey of the Location of Schools

A survey of the location of schools was done in the 16 blocks at two phases. The survey findings were tabulated and interpreted. These were printed in two volumes, *School Mapping* Vol.I and II, in 1981 and 1982 respectively and the copies were circulated to the government to ensure structural planning of schooling facilities in the coming years.

The survey provided this important information to the government to correct the imbalance in schooling facilities.

### **5.1:2.2 Research on Curriculum Development**

A sample survey of 10 households and a school was done at Marbisu, Mawphlang Block. The survey data provided

useful information for feasibility of introducing project schools under Project-2 on Primary Education Curriculum Renewal (PECR). With the introduction of the project, 30 project schools were selected where new and relevant curricula for primary level was also developed. The curriculum developed was accompanied by the instructional materials. The new curriculum along with these materials was first tested in these project schools and on the basis of its implementation revision was made accordingly. These materials were then widely infused in the State in a phased manner till the MBOSE implemented the same in the whole State.

#### **5.1:2.3 Educational and Vocational Survey**

Educational and Vocational Survey conducted in 1984 revealed that the Guidance and Counselling Unit in the school need to be strengthened by appointment of a trained career master and mistress on full-time basis and an extra room for planning their work systematically.

As a follow-up action, SCERT has trained career masters and mistresses and even a talk was organised in the school to strengthen the guidance unit. A booklet on Educational and Vocational guidance was also printed for wide circulation in the schools. These were done at the level of the SCERT but no school has a separate unit of guidance and counselling of its own though the schools have the trained career

masters/mistresses because no sanction was received from the government.

#### **5.1:2.4 Research on Wastage and Stagnation**

This research study was first conducted in 1985 and later in 1990 another study was conducted on similar lines. Both the surveys pointed out the causes of wastage and stagnation like prevalence of single teacher schools and lack of necessary infrastructure in the schools. Though these findings were mostly policy-matters, yet the findings were made known to the government.

The findings of both the studies depict the picture of the position of primary education in the State and on the basis of the survey findings the government of Meghalaya, with the financial aid received from the Government of India appointed more than 200 teachers in the single teacher schools and school building and necessary materials under Operation Blackboard Scheme were provided to the schools. This was according to the Programme of Action 1995, Education Department, Meghalaya.

From the academic point of view, the SCERT has been continuously giving training to the under-qualified teachers in the State to help them cope with the work they have to do in the schools.

In the first survey, a study on wastage and stagnation depicted that wastage of education at the Primary level was of the tune of 79.9 per cent. Whether this picture has improved or not, this was not shown in the second survey that was conducted. This shows that there is no systematic follow-up action taken on the first survey findings.

Another study is yet to be taken up this year. It is hoped that the present study will incorporate an element of follow-up in rectifying the weaknesses of the past two surveys.

#### **5.1:2.5 Surveys on Performance of Student**

An analysis of qualitative and quantitative performance of different schools in Meghalaya, revealed that the causes of high percentage of failure were due to general weakness in Mathematics, English, Geography and History. It also revealed that the tribal students in general are weak not only in Mathematics but also in English. These findings had encouraged the Council to investigate the effectiveness of teaching these subjects in Meghalaya schools. It was found that there was a very high percentage of untrained and under-qualified teachers. Most of these teachers have had long experience and hence their competence was to be improved through constant in-service training. This will form a regular feature of the Council's work in the coming years.

## 5.2 CURRICULUM DEVELOPMENT

A curriculum may be regarded as the sum total of the deliberate, planned set of educational experiences provided to the child by the school. It is concerned with the total development of the child's personality which will ultimately lead to the development of the society.<sup>1</sup> It is not a static entity but it is always in a process of change and development to meet the needs of social, economic, political and technological changes. If curriculum is to serve the purpose it must be a well-designed one, carefully planned to achieve the goal of transforming the child.

In Meghalaya, before the establishment of the Meghalaya Board of School Education (MBOSE) the schools in the state were under the jurisdiction of the Board of Secondary Education, Assam and the schools followed the syllabus and textbooks prescribed by the Assam Board.<sup>2</sup> The MBOSE came into existence only in 1973 and decided to maintain status quo in respect of courses of studies and textbooks. Till 1977, the MBOSE had been following the textbooks prescribed by the

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1. Report of the work done in the field of curriculum development, MBOSE, Tura, 1976.

2. Ibid.

Assam Board in 1973<sup>1</sup> or earlier. But the Assam Board had in the meantime decided to adopt the new pattern of education and some of the older books required by MBOSE had gone out of the market. Such books had to be replaced by books which were already available in the market and conformed to the syllabus. For example, a series of English Readers from class IV to VIII had been written and published by private agencies and these books were available. Similarly, NCERT Science Books, "Science is Doing" were translated into Garo and Khasi, the two major languages and introduced in some selected schools as a pilot project. The help of the textbook corporation of neighbouring states also had been obtained. That was the state of affairs of curriculum in the state.

Meanwhile, the Government of Meghalaya set up an Education Commission in 1977<sup>2</sup> to study various problems of Education in Meghalaya and one of them was to review the curriculum in the state. The report was made ready after a year. The Commission viewed seriously that the existing syllabus was not in tune with the needs and aspirations of the individual nor was it effective in meeting the problems of the society. Thus, it recommended revision of the school

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1. Curriculum and Syllabi for Secondary Schools Classes V-X, Assam Board of Secondary Education, Assam, 1973.
  2. Meghalaya Education Commission, 1977, Government of Meghalaya.

curriculum and introduction of Work Experience (WE) or SUPW (Socially Useful Productive Work) as integral part of the school education.

It also recommended teaching of Science and Mathematics throughout the school stage as these subjects are necessary for productivity, as well as for developing a rational outlook.

The SCERT, though a new institution in the state was assigned the work of developing a new curriculum and it took up the challenge. As curriculum review and revision is one of its normal functions, the SCERT reviewed the curriculum in the state and found out that the schools mainly concentrated on imparting bookish knowledge and neglected the other two aspects of education, namely developing skills and inculcating proper interest, attitudes and values as the then curriculum made inadequate provisions for practical activities and experiences related to local background.

In order to upgrade and improve the school curriculum, the SCERT took up the task of revising the curriculum right from the primary level and the first task to this regard was in respect of primary education curriculum.

#### **5.2:1.1 Development of Primary Education Curriculum**

Realising the need for evolving flexible curricula related to local background, the Government of India

initiated a project all over the country on Primary Education Curriculum Renewal (PECR)<sup>1</sup> in 1975-76 with assistance from UNICEF. The state of Meghalaya, like other states, took advantage of the opportunities and signed an agreement on 18th May, 1979 with the Ministry of Education, Government of India to implement the three UNICEF projects and one of these was on Primary Education Curriculum Renewal (PECR). This project aims at developing new and relevant curricula for the primary level, i.e. classes I to V which can meet the educational needs of children in a disadvantaged group/society and to adjust the curriculum qualitatively to the life-style of the children and the socio-economic opportunity that is likely to be available.

With the implementation of the project PECR in the state, the curriculum team from SCERT was oriented.

The project Primary Education Curriculum Renewal (PECR)<sup>2</sup> is directed towards achieving the following objectives through adoption of various means related to the curriculum renewal programme.

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1. Report of the UNICEF Projects, SCERT, 1980.
  2. Plan and Action and Major Thrust of Primary Education Curriculum Renewal (PECR) Project, Primary Curriculum Development Cell, NCERT, New Delhi-16, 1972.

(i) To develop innovative curriculum which can meet the educational needs of different groups of children especially the disadvantaged sections of society.

(ii) To adjust the curriculum qualitatively to the life-style of the child and the socio-economic opportunities likely to be available.

(iii) To make the existing primary education more meaningful by infusing gradually into elementary school curriculum innovative ideas tested in the experimental educational programme in the project schools.

In the implementation of the project in the state, the following agencies were involved -

(i) At the national level, NCERT through its Primary Curriculum Development Cell (PCDC) monitored and provided guidance to the state.

(ii) At the state level, the SCERT through the State Primary Curriculum Development Cell (SPCDC) consisted of three Lecturers in Education, SCERT was responsible for implementation of the project. To assist the SCERT in effective implementation and close supervision of academic work in the project schools, three teachers training institutes were selected to participate in the project.

The project schools were selected on the basis of the survey conducted and they represented the most disadvantaged sections of the society.

Identification of curriculum team - Eight SCERT Lecturers, of different subject areas were identified in 1980 and constituted the state curriculum team in Meghalaya. The team was given orientation programme in the same year by the Primary Curriculum Development Cell, NCERT<sup>1</sup> for curriculum renewal. The main discussions were the National Objectives of Education in the State Minimum Learning Continuum, findings of the Primary Education Curriculum Renewal Survey, 1980 and the existing curricula of the state.

Development of curricula and syllabi for classes I to V and a detailed syllabus for classes I and V have been developed by the SPCDC team following the principles of the Minimum Learning Continuum<sup>2</sup> and basing on the needs of the community and locality.

The process of curriculum development under the PEER project in the state was a joint and cooperative venture of the members of SPCDC, SCERT, staff of the TTI's and the Project Schools, subject experts and authors drawn from various institutions.

Instructional materials were developed in all subject areas for all classes (I-V) through a series of workshops -  
(a) Orientation courses for authors in all subject areas  
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1. A Report of the SCERT - Advisory Council Meeting, 1982.
2. Minimum Learning Continuum, Primary Curriculum Development Cell, NCERT, Publication No.3, 1979, New Delhi.

(b) Preparation of instructional materials (c) Review and finalisation of instructional material (d) Printing of the Instructional materials.

Then orientations<sup>1</sup> and training sessions for teachers were held on the implementation of the curriculum. The instructional materials which consisted of textbooks, teachers Guide and Workbooks were despatched for use in the Project School along with evaluation and try-out tools. The evaluation tools were collected for periodic evaluation and its analysis for immediate feedback. Revision of the instructional materials were done in the light of evaluation reports.

The revised instructional materials were printed (list is shown in appendix VII) and implemented in each class. Then the same was planned for wider infusion into the State System. A scheme for adapting the revised curriculum in other schools was done after a High Level Committee reviewed the curriculum and instructional material. This Committee comprised of the Education Secretary, the Director of Public Instruction and curriculum experts and SCERT team was set up in accordance with the recommendations of the National Meet of Project Coordinators<sup>2</sup> and finally reviewed and examined

1. Report of the UNICEF Projects 1992, SCERT, Shillong.
2. Report of the National Level Meeting of PCDC, NCERT, 1979.

the feasibility and suitability of infusing the curriculum into the State System.

With the recommendation of the High Level Committee, the syllabus and the instructional materials were widely infused into the State System. The infusion was first done for class I in the 500 L.P. schools of the state in 1989 and it was planned to expand the scheme to 1000 schools the following year and also to introduce class II curriculum in those 500 schools already infused in the first year.

This would have continued for a number of years had not the State Government notified in 1990<sup>1</sup> that all schools in the state shall switch over to the New Pattern of Education and introduce the new syllabus immediately. Thus the curriculum and instructional materials developed by the SCERT were implemented as soon as the switch-over to the New Pattern of Education was announced by the state government.

#### **5.2:1.2 Development of Elementary Teacher Education Curriculum**

The change of curriculum at the primary stage level necessitated changes in the pre-service training of teachers at the elementary stage. As such, action was taken and the

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1. Government Notification dated 23rd March, 1990 published by Education Department, Meghalaya.

curriculum was reviewed through series of meetings and workshops based on the suggestions contained in the National Council of Teacher - A Curriculum Framework<sup>1</sup> A detailed curriculum was prepared. This was finalised in 1982 during the meeting of the Principals at SCERT, Shillong.

Though the syllabus was ready in 1982 the government took a long time to take decision in this regard. The SCERT called a meeting of the District Officers which was attended by the Inspectors of Schools, Deputy Inspectors of Schools and Principals of Teachers' Training Institutes<sup>2</sup> on 4.3.83 at the office chamber of the Director of Public Instruction to discuss matters relating to implementation of the revised syllabus. All the participants agreed to implement the syllabus but expressed problems regarding shortage of staff and incompetent craft teachers in the Teachers' Training Institutes. SCERT suggested TTIs to seek community participation. The revised syllabus was implemented in the state in 1985. With the announcement of the Education Policy on Education 1986, the syllabus was again revised by the SCERT on the request of MBOSE in accordance with the NPE, 1986.

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1. NCTE - A Curriculum Framework DPESSE, NCERT, New Delhi.
  2. Proceedings of the Meeting - Report of SCERT, 1983, SCERT, Shillong.

The two-year course of Normal Training Schools was also taken up by the SCERT on the request of the MBOSE. Through series of workshops, the same was finalised and submitted to the MBOSE for implementation.

### **5.2:1.3 Development of Curriculum at Secondary Stage**

Side by side with the revision of the primary education syllabus under UNICEF Assisted Project 2 on Primary Education Curriculum Renewal (PECR), the SCERT also took up the work of reviewing the secondary syllabus in the state. It was realised that the curriculum was merely a set of courses of study without any sense of direction. It was an old curriculum followed by Assam Board.<sup>1</sup> Incidentally, Assam had revised its curriculum and implemented it since 1974. Thus, there was an urgent need to revise the secondary curriculum in the state.

The SCERT prepared a draft plan of action to revise the secondary curriculum and moved for sanction of the plan and funds to the government during 1981 with the following main aims -

(i) To revise the existing curriculum/courses of study so as to make it well-defined, relevant and up-to-date, and

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1. MBOSE, Courses of Studies and List of Text-Books for High School Leaving Certificate Examination, MBOSE, Tura, 1976.

(ii) To make the educational standard in the state at par with the national level.

The work was undertaken in a phased manner through series of meetings and workshops. The experts in the field from outside the state and from the state were involved for detailed preparation of the curriculum. These personnel were from NCERT, NEHU, CIEFL, District Officers and Teacher Training Educators and College teachers. The first phase was a two day meeting convened by the Director of Public Instruction and the main committee consisting of a Chairman and Member Secretary was set up.

The second phase was an indepth review of the existing curriculum in relation to the objectives, the scheme of studies, the regional needs vis-a-vis maintenance of national and international standard, the scheme of evaluation and the like. From the above, the structured curriculum pattern was finally framed. The main committee then appointed the sub-committee which was responsible for preparation of detailed syllabus for each subject area. Each sub-committee consisted of 20 members and one expert.

In phase three, each subject committee held a workshop for preparation of the detailed syllabus. Each workshop was of fifteen days duration.

Then the main committee and sub-committee met in a 5-day meeting-cum-workshop for finalisation of the detailed

syllabus of each subject area. When the detailed syllabus was finalised it was published and sent to the government for approval. The matter was pending with the government when the Government of India announced the National Policy on Education 1986<sup>1</sup> it again called for reconsideration of the syllabus on the lines of the NPE, 1986. So with the declaration and adoption of the New Policy of Education, 1986, it was envisaged that the core elements would get incorporated into the National Framework of School Education. In accordance with the NPE, 1986 and its Programme of Action (POA) the curriculum at the school level was reviewed and developed by the SCERT with the help of experts from NCERT and local college and school teachers of Meghalaya. As mentioned earlier, the curriculum for classes I-V had been developed under UNICEF Assisted Project 2 (PECR). The same was again reviewed in accordance with the New Policy on Education.<sup>2</sup>

Before finalisation of the curriculum, seminars were conducted in each district of the state to elicit the opinions of the school teachers and to create awareness about the new curriculum. The curriculum was then finalised and

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1. NPE, 1986, Ministry of Human Resource Development, Government of India.

2. Report of the Activities of the SCERT, Meghalaya Since Its Inception, 1992.

submitted to MBOSE in 1988. The new syllabus was implemented in phases in the state starting from 1990. The SCERT was also entrusted by the MBOSE with the preparation of instructional materials and text materials in seven language areas for classes IV-X. It completed the work and submitted to the MBOSE.

Syllabus on 3rd Language in five language areas has also been developed by the SCERT and submitted to the Board. The revised curriculum has the following scheme of studies :

<u>Class</u>	<u>Subject</u>	<u>Marks</u>
I & II	(i) Mother Tongue (1st Language)	100
	(ii) Mathematics	100
	(iii) Environmental Studies	100
	(iv) Work Experience	100
	(v) Creative Expression	100
		500
III & IV	(i) Mother Tongue (1st Language)	100
	(ii) English	50
	(iii) Mathematics	100
	(iv) Environmental Studies	100
	(v) Social Studies	100
	(vi) Work Experience	100
	(vii) Creative Expression	100
		650
V	(i) Mother Tongue (1st Language)	100
	(ii) English (2nd Language)	50
	(iii) Third Language	100
	(iv) Mathematics	100
	(v) Science	100
	(vi) Social Studies	100
	(vii) Health and Physical Education	50
	(viii) Work Experience	50
	(ix) Creative Expression	50
		750

VI & VII	(i) Mother Tongue (1st Language)	100	
	(ii) English (2nd Language)	50	
	(iii) Third Language	100	
	(iv) Mathematics	100	
	(v) Science	100	
	(vi) Social Science	100	
	(vii) Health and Physical Education	100	
	(viii) Work Experience		Grading
	(ix) Creative Expression		
		<hr/>	700
VIII	(i) Mother Tongue (1st Language)	100	
	(ii) English (2nd Language)	50	
	(iii) Mathematics	100	
	(iv) Science	100	
	(v) Social Studies	100	
	(vi) Health and Physical Education	100	
	(vii) Work Experience		Grading
	(viii) Creative Expression		
IX & X	(i) Mother Tongue (1st Language)	200	
	(ii) English (2nd Language)	200	
	(iii) Mathematics	200	
	(iv) Science	200	
	(v) Social Science	200	
	(vi) Health and Physical Education	100	
	(viii) Work Experience		Grading
	(ix) Creative Expression		
			<hr/>

#### 5.2:1.4 Higher Secondary Stage (+2 Stage)

With the adoption of the New Pattern in the state, the +2 stage forms part of school education. But since school education is under the state Directorate of Education, taking over the Pre-university course from the colleges needed consideration. In the meantime the North-Eastern Hill

University took a decision to hand over the P.U. level to the state Department of Education to form the Higher Secondary stage of education from the 1995 session. This work was entrusted to the MBOSE which has entrusted SCERT to develop curriculum at +2 stage. The curriculum for this stage involves two streams - Academic and Vocational streams. The work is under progress. College Lecturers have been involved in the preparation of the syllabus alongwith SCERT personnel. The curriculum for vocational stream was ready and submitted to the MBOSE.

It may be mentioned that the +2 stage is still using the Pre-University course with internal assessment for class 11 (eleven).

#### **5.2:2.0 An Assessment of the Present School Curriculum**

The present school curriculum in the state revised by the SCERT, was implemented in the state in a phased manner with effect from 1990 as per the notification of the government dated 23rd March, 1990. Since the implementation of the curriculum completed its phased cycle only two years now, an assessment of the syllabus could not be made based on the problems met by the people in the field in its implementation. Thus, the investigator felt than an assessment of the present syllabus could be made only in

relation to the National Curriculum Framework<sup>1</sup> and in comparison to the old syllabus followed in the state earlier. So, in an attempt to do so, it is felt necessary that the basic features of the National Curriculum Framework be enumerated below.

#### **5.2:2.1 National Curriculum Framework**

A National Framework for Primary and Secondary Education is envisaged in the context of national system of education<sup>2</sup>. The basic features of the curriculum framework are as follows:

(i) Emphasis on the attainment of the personal and social goals and propagation of values enshrined in the constitution.

(ii) The development of human resources for the realisation of the national goal of development.

(iii) Broad based general education to all learners at the primary and secondary stages.

(iv) Learner-centred approach rather than the teacher-centred approach.

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1. National Curriculum Framework - NCERT, New Delhi, 1977.

2. Naya Shikshak/Teacher Today, January-March, 1986, p.78-79.

(v) Provision for flexibility in terms of selection of content and learning experiences which would facilitate the attainment of expected learning outcomes.

(vi) Applicability of the curriculum to old learners irrespective of their modes of learning.

(vii) Provision of threshold resources (physical and academic) necessary for effective transaction of the curriculum.

Core Curriculum: Among the features mentioned above, the first two are central to the organisation of curriculum. They reflect the major objectives of the curriculum. The essential learning envisaged would emerge from these objectives which would be attained through a common scheme of studies at the primary and secondary stages. A curriculum based on these essential learnings and a common scheme of studies is referred to as a core curriculum.

The core curriculum, therefore will be centred around certain learning outcomes for all learners. It will thus provide uniformity to the expected attainments of learners and standards of education throughout the country. The core curriculum will, therefore augment mobility of the learners both lateral and horizontal within and between different modes of learning. However, the core curriculum will be characterised by a great flexibility in respect of content and designing learning experience based on local situations.

Scheme of Studies: The essential learnings under the core curriculum will be provided through content and learning experiences related to subject areas. The core curriculum is thus characterised by a common scheme of studies as indicated below:

(a) Pre-Primary Education: The basic mode of upbringing of children at this stage should be through group activities and play-way techniques, language games, number games and activities directed to promote environmental awareness etc. These should be used to make the learning experience joyful to the children. No formal teaching of subjects be undertaken at this stage.

(b) Lower Primary Stage: (i) One language - the mother tongue or the regional language (ii) Environmental Studies (iii) Mathematics (iv) Work Experience/Socially Useful Productive Work (v) Art Education (vi) Health and Physical Education.

(c) Upper Primary Stage: (i) Three languages (ii) Science (iii) Mathematics (iv) Social Science (v) Work Experience/Socially Useful Productive Work (vi) Art Education (vii) Health and Physical Education.

(d) Secondary Stage: (i) Three languages (ii) Science (iii) Mathematics (iv) Social Sciences (v) Contemporary India (vi) Work Experience/Socially Useful Productive Work (vii) Art Education (viii) Health and Physical Education.

### 5.2:2.2 Curriculum of the State of Meghalaya

The present syllabus of the state of Meghalaya is found to be in conformity with the national curriculum framework as it incorporates the features mentioned in it. It is essentially future-oriented and gives an impetus to the educational efforts giving it a definite form and sense of direction to school education in the state. Content-wise, the revised curriculum is according to the expectation as envisaged in the National Policy of Education (NPE), 1986. As rightly pointed out by Fr. George Plattotam<sup>1</sup>, the merits of the new syllabus are its comprehensiveness and continuity. The syllabus has been unfolded systematically and progressively. The objectives, goals and parameters are clearly delineated.

The explicit goals of education as envisaged by the NPE are the communication of knowledge, the progress of individual competence for social autonomy, equal opportunity, linkages with the world of work, promotion of national integration through educational programmes and continual cultural enrichment all contributing to national development. The development is holistic because it gives due emphasis to every individual child. The learner-centred and activity-oriented instructional process proposed by the new curriculum

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1. Seminar paper on 'Impact of the New Syllabus in the State', SCERT, Shillong, 1992.

aim at developing not only the intellect of the child but his entire personality. In short, the curriculum seeks national development through the development of the individuals.

What the new curriculum expects that every student it educates upto secondary school level will be a creative citizen who has also moulded within himself unique value-system and one who is ready to take up the different roles to choose an appropriate academic or vocational stream at the higher secondary level.

As for the values prescribed, there is a set of specific values apart from generally desirable ones which the curriculum expects to mould in the character of each child. The values consist of moral, aesthetic, cultural, social, political and spiritual sensibilities which befits a civilized nation. Some of the specified values are secularism, democracy, socialism, scientific temper, concern for the environment and appreciation of the small family norms. However, it is intended that these values are integrated into the individual total character so that they become the controlling tendencies which pervade his unique philosophy or world view.

### 5.2:2.3 Comparison of Old and New Curriculum of the State

The present curriculum<sup>1</sup> is a detailed document where it contains an introduction to explain its importance and relevance and detailed instruction for use by teachers, administrators and authors. It details out instructional objectives, the scheme of studies and the mark allocation, teaching-learning strategies and evaluation procedures. In short, it is characterised by the presence of the following features of a good curriculum.

(i) General objectives of education at a particular stage or class: The curriculum had adequately specified the objectives of learning for all stages of education. At the primary stages of education, the curriculum is related to the environment. Thus it is more functional, significant and relevant to the needs of the children. Since the strategy for universalisation of primary education is to enroll all children of the specific age group through alternative modes of teaching and learning, the curriculum is so designed as to provide a high degree of flexibility in the structure of education.

At the Upper Primary stage the content and process of education are intended to consolidate and strengthen the abilities acquired at the lower primary stage. The curriculum

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1. New Curriculum and syllabi for Secondary School, Classes VIII-X, MBOSE, Tura, 1990.

at the secondary stage provides opportunities for children for acquiring a wide knowledge base in the context of a broad-based general education. It is so designed that after this stage a learner should be able to enter the world of work or take up vocational courses or take up higher academic courses of study preparatory to the university stage.

(ii) Subject-wise instructional objectives: The curriculum objectives are spelt out through the instructional objectives specified subject-wise in the present curriculum. These are realised through the following curricular areas:

Language, Science, Mathematics, Social Science, Work Experience, Creative Expression and Health and Physical Education forming the compulsory subjects in the course.

*Language*: Language is central to the social, emotional and cognitive development of the child. The child operates every day with an extensive working knowledge of his language, a knowledge that he has rapidly acquired in the first years of childhood. His competence is extended by using a language in a variety of social contexts including those provided in the school. He uses language to communicate with others, uses it imaginatively and individually when thinking about, responding to or dealing with his experience. He uses it as a medium for learning, making statements and acquiring information. In the area of language, the new syllabus emphasised the threefold methodology of instruction,

description and narration which tried to take out the learning of language out of a kind of straight jacket in which it was until now.<sup>1</sup> The present language syllabus takes care of the four basic skills which help the total development of the language competence of a child. The three language formula is to be effectively implemented. The first language is mother tongue/regional language, the second language is English and the third language is one of the following - Khasi, Garo, Bengali, Assamese, Nepali for Hindi-speaking and Hindi for non-speaking Hindi.

At the primary stage, the basic skills of reading and writing are emphasised to enable the learners to acquire those basic skills. Similarly, the skill of good handwriting and correct spelling is emphasised at this stage.<sup>2</sup> At the Upper Primary stage, the children's competence of the language skill is strengthened. At the secondary stage, the teaching of mother tongue/regional language centre around literature as a vehicle of culture and expression.

*Science:* The present Science syllabus comprises of Physics, Chemistry and Biology.

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1. Fr. George Plattotam, Seminar Paper The Impact of the New Syllabus on School Curriculum.
  2. New Curriculum and Syllabi for Lower Primary School Classes I-IV, MBOSE, 1990.

Science education should develop well-defined abilities in cognitive, affective domains and also in psycho-motor skills. It should help in the development of certain abilities and values such as spirit of enquiry, creativity, objectivity, courage to question and aesthetic sensibility. The knowledge competence, and skills of science should not only develop scientific and technological manpower needed for development of the country and also to develop in all citizens a scientific attitude for living a meaningful life.

Broadly speaking, the teaching of science during the first ten years of schooling should enable a learner to become acquainted with the nature of scientific knowledge, concepts of science, process of science relationship between science and technology and the society, develop interest in science-related matters and acquire skills to use tools, apparatus, instruments and equipments.

As such the steps in the present syllabus at the lower stage is the provision of concrete situations related to his immediate environment through which a learner can learn faster and formulate questions relating to various things in the environment. The learner is also expected to observe, classify and record the observations about the various living and non-living things and understand the cause and effect relationship through simple experiments.

At the upper primary stage, the objectives of learning science is to consolidate and strengthen the abilities acquired at the lower primary stage. In addition, the objective is to develop an understanding of certain physical, chemical and biological principles and their relationship to the operation of scientific principles in nature as well as in daily life.

At the secondary stage, the learners are expected to grasp further the basic structure and principles of science with special reference to the relation of science with agriculture, industry, and contemporary technology. The teaching of Science should develop insights into health and environment. More stress should be given on precision and accuracy of quantitative measurement and collection, presentation and analysis of data, and drawing inference from them. Problem-solving and decision-making abilities receive primary attention.

*Mathematics:* The old Mathematics syllabus had long outlived its usefulness and relevance especially in the light of the rapid advancement in Science and Technology in the last few decades. It had a number of defects, the more prominent being its repetitive nature and its lack of continuation with the next higher course.

The main objective of Mathematics in the revised curriculum is to develop in the child the competencies which

are relevant to real life situations that require mathematical thinking, understanding of mathematical principles, knowledge and information about the social and economic application of Mathematics in everyday life. The mathematics curriculum at the primary stage thus is related and relevant to the needs of a child as an individual and the society, the stress is laid more on the development of concept, skill and attitude.

At the upper primary stage, the student is expected to acquire knowledge and understanding of concepts, facts and principles related to the number system, commercial and mathematics, mensuration, geometry and fundamentals of algebra and statistics. The syllabus for this stage is mainly functional and linked to the environment and real life situations.

The secondary stage is a transitional stage from fundamental mathematics studied earlier to the study of mathematics as a discipline, in an appropriate form in the language of sets and functions. The content at this stage covers algebra, geometry, trigonometry and statistics. Arithmetic and mensuration is included in the form of application of algebraic method as also some basic computer concepts (computing) as a first step towards computer literacy.

*Social Science:* As the term connotes, Social Science syllabus is designed to assist the pupils in their social development. It is focused on human relationships and is concerned with the transmission of culture, formation of attitudes and relationship and also the development of certain attitudes and values which are essential for an active and intelligent participation in the affairs of the community, the nation and the world. An effective programme of teaching Social Science will help to develop emotional integration and good citizenship.

At the primary stage, the environmental studies consist of social and physical sciences which give stress on the environmental awareness and its application to daily life experiences. It is only at the upper primary stage that these two have been differentiated. Social studies consist of History, Civics, Geography and Economics. The content of social studies is introduced to the student in order to bring about an appreciation of these subjects as separate subjects. It will also help them to acquire an understanding of the society.

At the secondary stage, a terminal stage, the components under social science are studied as separate subjects. The purpose of teaching social science at this stage is to prepare them for their social, economic and political role in the country. As a consequence, the

curriculum is planned to equip the learners in terms of social values, attitude of mind, appreciation of democratic processes and skills and habits required for productive living, active participation in activities of the society and in his continued quest for knowledge.

*Work Experience or Socially Useful productive Work (SUPW):* Work Experience or SUPW forms the integral part/component of school education at all stages of education in the present syllabus. This subject area has been introduced to provide children with an opportunity of participating in social and economic activities inside and outside the classroom thereby enabling them to understand the scientific principles and processes involved in different types of work and help them develop necessary skills and positive attitudes towards manual work and towards fellow workers.

At the primary stage, the learning situations given to the learners are simple and are more of environmental awareness programme which provide a joyful experience to children while participating in these works. The experiences are such as to inculcate in the learners desirable attitudes towards manual work and develop understanding about the different types of work/occupation existing in the society.

At the upper primary stage<sup>1</sup>, children are more mature to carry out strenuous work involving higher skills which may require coordination of hand and brain. The student should be able to relate their knowledge of facts and scientific principles involved in various type of work. They should learn to apply problem-solving method and be able to identify and use the tools, raw materials and equipments in a scientific manner.

Observation, manipulation and work practice should be the methodology to achieve the goal. Besides, the children should develop a deeper concern for the environment and a sense of belongingness, responsibility and commitment for the community.

At the secondary stage, work practice assumes a much greater importance. Through Work Experience programme, children are expected to contribute meaningfully to environmental improvement and conservation, reduction of pollution and development of proper nutrition, health and hygiene in the community. At this stage, pre-vocational orientation and development of vocational attitude and interest is given sufficient importance so as to facilitate the choice of vocational course at the higher secondary stage.

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1. New Curriculum and Syllabi for Upper Primary Schools Classes V-VII, 1990, MBOSE.

The curriculum for SUPW is very flexible. Selection of activities could be done by the teachers along with the students depending upon the availability of the facilities and local requirement.

*Creative Expression:* Creative Expression forms an integral part of the new curriculum. Creative expression is the expression and projection of one's imagination regarding objects, ideas, feelings and personal desires in various forms through drawing, painting, modelling, music, dance and drama.

The child is creative by nature. There are many interesting revelations about him and his expressive urge. The things he wants to express are those which interest him because it appeals to his instinct. He even explores the use of media with his own effort. This quality of the child is manifested even in his play activities where he subconsciously expresses himself by way of rhythmic movements, humming of tunes and scribbling of art forms. Keeping this in view, the aim of creative expression at the primary stage is to nurture the inborn tendencies and develop his own perception and sensibility as he grows. To achieve this end, the various forms of art serve as media for his self-expression and creative growth.

The present syllabus at the primary stage provide an integrated learning experience of various forms of art to the

child. The form of art included are drawing, painting, printing, collage, modelling, music, dance and drama. At this stage, these learning experiences are mostly his reactions to immediate environment and translating them into activities which will help him explore and experience various kinds of art forms for self expression.

At the upper primary and secondary stage, the child is introduced to more advanced form of art, e.g. music activities relating to the use of instruments, tools or implement which may create rhythm, noise to the beat of music. This can be brought in if it is locally available. Song-singing in harmony melody keeping of correct time and rhythm. Drama, Dramatising the everyday life scene of a man immediately surrounding him and asking the child to imitate, mimic and reproduce.

But flexibility in the content is stressed keeping the local variation and availability of resources.

*Health and Physical Education:* Health and Physical Education is another subject area under the new curriculum. In Meghalaya, medical facilities are very poor and most of the students are unable to attend school regularly and sometimes drop out from school due to ill health. As such inclusion of health and physical education as a compulsory education is a must.

The study of health and physical education will enable the pupil to develop a balanced personality, possess good health and develop in them self-confidence so as to enable them to become useful citizens.

Health and Physical Education comprises of two components - Health Education and Physical Education. Health education includes preservation of health, first aid, nutrition, prevention of diseases and meeting emergencies with confidence, keeping surrounding clean etc. Physical education includes developmental exercises, rhythmic activities, sports and games, outing activities and group handling activities.

At the lower primary stage, there is no provision of this subject area in deviation to the national curriculum scheme of studies. At the upper primary level, the learning experiences are those of simple nature. These include personal hygiene, environmental hygiene, first aid, physical fitness exercises, games, sports and the like. At the secondary stage, students are introduced to the activities of higher level like different types of games and sports, classification and prevention of diseases and the like, though personal health and environmental health continue to be taught at this stage.

(iii) Course of Study and Mark Allocation

The scheme of studies/course of study<sup>1</sup> is specified at the beginning of the new syllabus which are in conformity with the national curriculum framework. These are as specified below:

<u>Class</u>	<u>Subject</u>	<u>Marks</u>
I & II	(i) Mother Tongue (1st Language)	100
	(ii) Mathematics	100
	(iii) Environmental Studies	100
	(iv) Work Experience	100
	(v) Creative Expression	100
III & IV	(i) Mother Tongue (1st Language)	100
	(ii) English (2nd language)	50
	(iii) Mathematics	100
	(iv) Environmental Studies	100
	(v) Social Studies	100
	(vi) Work Experience	100
	(vii) Creative Expression	100
V	(i) Mother Tongue (1st Language)	100
	(ii) English (2nd Language)	100
	(iii) Third Language	100
	(iv) Mathematics	100
	(v) Science	100
	(vi) Social Science	150
	(vii) Health and Physical Education	100
	(viii) Work Experience	50
	(ix) Creative Expression	50
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		750

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1. New Curriculum and Syllabi for Secondary Schools Classes VIII to X, MBOSE, 1990.

VI & VII	(i) Mother Tongue (1st Language)	100	
	(ii) English	100	
	(iii) Third Language	100	
	(iv) Mathematics	100	
	(v) Science	100	
	(vi) Social Science	150	
	(vii) Health and Physical Education	50	
	(viii) Work Experience		Grading
	(ix) Creative Expression		
		<hr/>	700
VIII	(i) Mother Tongue (1st Language)	100	
	(ii) English (2nd Language)	100	
	(iii) Mathematics	100	
	(iv) Science	100	
	(v) Social Science	150	
	(vi) Health and Physical Education	100	
	(vii) Work Experience		Grading
	(viii) Creative Expression		
			<hr/>
IX & X	(i) Mother Tongue (1st Language)	200	
	(ii) English (2nd Language)	200	
	(iii) Mathematics	200	
	(iv) Science	200	
	(v) Social Science	200	
	(vi) Health and Physical Education	100	
	(viii) Work Experience		Grading
	(ix) Creative Expression		
			<hr/>

Regarding the scheme of studies, the curriculum deviates from the national core curriculum in relation to the exclusion of Health and Physical Education at the lower primary stage. English is introduced as a second language in classes III and IV though second language does not find a place at this level in the national framework.

At the upper primary stage, there is no deviation from the national framework. At the secondary stage, the scheme of studies remain the same except for the paper on Contemporary India which is not introduced in the scheme of studies of the state.

Regarding the mark allocation, there is no uniformity. Work Experience and Creative Expression are allotted at primary stage 100 marks each but in class V the marking is reduced to 50 only and at the upper primary stage and secondary stage, no marks are given but they are evaluated in grades. Otherwise in all subject-areas marks allocation is well specified.

(iv) Teaching-learning Experience

The teaching-learning strategies are clearly indicated in the present syllabus to ensure mastery learning. The Instructional objectives have been spelt out for each subject-area and for each unit in the syllabus, e.g. the learning situation given for class VIII in Science is identifying the preventive measures for conservation and protection of resources, the competencies spelt out are - (i) Appreciating the need of conservation and role of conservation in environmental improvement. (ii) Recognising the different conservation practices (iii) Solving problem through individual and community participation.

Participation of the learners in activities inside and outside the classroom through the learning situations presented in the syllabus signifies that the present curriculum is no more dominated by teachers. The process of curriculum development reflects its decentralised character where specified learning situations are devised based on child's environment. For example, SUPW and Creative Expression are the two subjects where the teachers encourage student's participation in activities according to their own interest and need. Thus, flexibility of the syllabus helps the child to learn better in local condition based on the availability of local resources. But in spite of the flexibility, certain essential learning outcomes common for all learners are expected to be attained through the activities given to the child. For example, in language, a child is expected to master a competency of learning the alphabet and in the numerical sphere he has to learn to count numbers 1 to 100 at the end of class I. This is expected from each and every child. It is the duty of the teacher to see that all the students attain this competency. Remedial teaching is emphasised where necessary to ensure mastery learning.

(v) Instructional Aids and Materials

Instructional materials are the added attraction of the new curriculum in the state. These are in the form of

textbooks, teacher's guide-books and work-books. The new curriculum especially at the lower primary stage is accompanied by development of materials and these were experimented in the project schools and evaluated by the teachers of these schools. The instructional materials were revised accordingly.

It may be mentioned that at the secondary stage, development of materials in language was done by the SCERT but in other subject areas the instructional material were mostly adopted from NCERT textbooks.

(vi) Evaluation of Learning Outcomes and Feedback to Pupils

Pupil evaluation is also spelt out in the new curriculum and is concerned with the learner's development and should be concomitant with curriculum transaction. It is viewed as an integral part of teaching-learning process. It is directed towards competencies or competency-based rather than testing of memory. It gives emphasis on the evaluation of the total behavioural modifications of the child. His positive attitudes towards environment, the society and manual work, the values imbibed and his behaviour patterns. Thus, the evaluation embraces the three domains namely cognitive, affective and psychomotor with reference to the child. Evaluation is thus not used for ranking and gradation but the teacher's job is to plan to facilitate learning process of the child at his own pace on the basis of

continuous feedback from and to the learner. Thus schools are endeavouring to evolve proformas for maintaining records about each child's performance on the basis of a variety of devices like observation, oral tests, written test and performance tests.

In contrast, the old syllabus was merely a course of study with list of books for each subject-area. Except for the list of contents there is no specification of objectives and competencies or instructional objectives specified for the student. There were no activities prescribed for the student. It was all teacher dominated.

The scheme of studies<sup>1</sup> for High School Leaving Certificate under the old syllabus were as follows:

<u>Compulsory Subjects</u>	<u>Marks</u>
(1) English (1st & 2nd)	200
(2) Mathematics	100
(3) History	100
(4) Geography	100
(5) Elementary Scientific Knowledge	100
(6) Modern Indian Language (1st & 2nd)	200
(7) Classical Language or Alternative Vernaculars	100
	<hr/>
	900
Additional subject	100
	<hr/>
Total with additional subject	1000
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 1. MBOSE, Courses of Studies and List of Textbooks for HSLC Examination, 1987, Tura.

There was no mention of the evaluation procedure and so the written test was the only evaluation technique for old course.

In conclusion, it may be mentioned that the new curriculum marks a turning point in the academic history of the state. It is a long felt need of the people as it resurrects education from the remnants of the past and sets the school facing the emerging national society.

But this is not to say that the new curriculum does not have any loopholes. No doubt theoretical instruction is given with an extensive incorporation of every subject. But to perceive the real purpose of education as seen in the national curriculum framework, it is necessary to scrutinise the broad objectives of teaching each subject. For example, some of the objectives of teaching Social Science like comprehension of contemporary, social and economic problems, and development of social skills and civic competencies and the development of a national perspective which would equip the students to participate in the task of social and economic construction. Special emphasis given to Creative Expression, Work Experience and Health and Physical Education are indeed welcome steps. But unless concrete steps to implement these programmes are evolved, little will be achieved in this regard. Again, one of the objectives of teaching mathematics is listed as development of skills to

work with modern technological devices such as calculators, computers and so on. An analysis of the teaching objectives of each subject reveals the orientation, viz. industrialism. With its aims and objectives it remains to be seen how does the state cope with it. Will it provide the needed infrastructure required by the new curriculum? This is the challenge of the new curriculum.

However, whatever the goal be, the success of an educational system depends to a large extent on the efficiency of the educators. No people, it is said, can rise beyond the level of its teachers. A vast majority of the lower primary, upper primary school teachers in the state are underqualified or untrained. The situation in the secondary schools is no better. Owing to nonavailability of Mathematics and Science graduates, these subjects are being taught by arts graduates in many schools. Many are the schools which are contented in having life science graduates to teach Mathematics and Physical Sciences. Such teachers will not be able to do justice to their subjects with the new curriculum. There have been complaints even from Social Sciences teachers for they find themselves not confident with the course which they have to teach without proper orientation. So, unless the teachers are effectively motivated and oriented, the curriculum is likely to remain an ideal rather than an integral part of a living education system.

### **5.2:3.0. Development of Instructional Materials**

Along with the development of the curriculum development of Instructional materials was also undertaken by the SCERT with a view to improve the quality of education in the State. The activities included the development of instructional materials at the primary stage under the UNICEF Project-2 — Primary Education Curriculum Renewal (PECR) and development of supplementary materials for the Upper Primary and Secondary Stage. The instructional materials developed may be mentioned as below :

#### **5.2:3.1. Development of Instructional Materials at the Primary Stage**

Having finalised the draft syllabi, the same was sent to NCERT for finalisation and was approved in March 1982.<sup>1</sup> The next step taken by the SCERT was identification of the team members for developing the material. Through a series of training sessions and workshops the format of the content was developed, finalised and reviewed on the basis of the expert advice. The materials for Classes-I and II were finalised and translated into regional languages — Khasi and Garo and printed in 1982. Then during the same year a detailed syllabi for Class-III was prepared and development of materials was -----

1. SCERT - "A Consolidated Report on UNICEF Assisted Project" 2(PECR), 1982-83.

finalised, translated and printed in 1983. In 1984, development of detailed syllabi for Class-IV and preparation of instructional materials were finalised and printed.

The implementation of the new curriculum with accompanying instructional materials were experimented in the select 30 Project Schools under the Project in a phased manner. The materials were evaluated by the teachers of these schools while implementing the project and revision of materials was made accordingly. The subject-areas for which instructional materials were prepared included Language, Mathematics, Environmental Studies, Socially Useful Productive Work (SUPW) and Creative Expression (CE). These materials are in the form of textbooks, Teachers' Guide Books and work-books for the Children. The details of the instructional materials developed by the SCERT classwise are as shown at Appendix-VII.

The Meghalaya Board of School Education (MBOSE) has approved the implementation of the new syllabi and textbooks in the project schools. The first batch of students of the project schools appeared the Primary School Leaving Certificate Examination conducted in the academic year 1988. In the meantime, the Government evaluated these new instructional materials and approved that these materials be infused in all the Primary Schools of the State in a phased manner. In the first phase of wider infusion, Classes-I and

II instructional materials have been reprinted and introduced in the 500 selected schools from the academic year 1989. Meanwhile, preparation of Class-V detailed syllabi and instructional materials were done in 1988-89 though these were not implemented in the project schools.

The instructional materials for Classes-I to IV were printed and distributed to the schools but printing was done only for textbooks and workbooks. Guidebooks were only cyclostyled except the Guidebooks for Classes-I and II. The instructional materials for Class-V were produced in manuscript form and the same was handed over to the MBOSE for printing after the Government of Meghalaya announced implementation of the new syllabus in the whole state in 1990.

#### **5.2:3.2 Development of Instructional Materials at the Upper Primary and Secondary Stages**

The development of Instructional materials at these two stages was done only in the area of languages including Khasi, Garo, Assamese, Bengali, Hindi and Nepali. The instructional materials were finalised through a number of workshops and were submitted to the Board for printing and implementation.

Though development of the instructional materials was not done by the SCERT according to the Revised syllabus, yet

development of reading materials was undertaken in all subject areas by the SCERT in course of its existence. These may be mentioned as below :

A. In the Area of Science and Mathematics

1. Development of Guidebook in Science

the Council (SCERT) through the Science unit organised a workshop for developing instructional materials pertaining to Guidebook in Science for High School teachers in 1978-79. The experience and competent College and School teachers were involved in the programme. These experts were drawn from NEHU and college teachers. About 33 participants participated in the programme. The main objectives of the programme were (i) to improve the existing school science syllabus keeping in view the present day needs of the learners and to help bridge the ever widening gap between the existing school Science syllabus course and the Pre-University course and (ii) to guide the teachers in their day-to-day classroom teaching methodology.

The materials were compiled and printed for use in the High School by the Science teachers.

11. Hints on the Teaching of Algebra

During the same year, the Department of Science brought out an Instructional materials in printed form entitled "Hints on the teaching of Algebra", Vol.I. The

objective of the programme was to meet the requirements of Mathematics teachers in their teaching-learning process.

The book was printed and sent to the schools.

111. Teachers' Guidebook in Mathematics for High School

The SCERT has also brought out the materials relating to teacher guidebook in Mathematics through a series of workshops where the Council involved experienced and competent college and school teacher. The book was developed and printed for use of the teachers in the school.

1v. Supplementary Reading Materials in Science for High School

In 1979-80, the Council through its Departments of Science organised a workshop for development of Supplementary Reading Materials<sup>1</sup> in Science for High School teachers.

The main objective of the programme was to update and improve the school science syllabus and to provide them resource materials in science to meet the present day needs of the learners.

The programme was organised under the expert guidance of the University and College teachers and was attended by experienced High School teachers in Science and Mathematics of Shillong who made valuable contribution towards the  
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1. SCERT - Supplementary Reading Materials on Science for High School, Vol.I, 1982.

preparation of Supplementary Reading Materials. The book is now in printed form, in two volumes – Part I and II.

v. Model Textbook in Science for Class-IX

In 1981-82, in continuation to the work done earlier, the SCERT tried to create a breakthrough in the manner in which we conduct our school education. The textbooks were not only inadequate but outdated and poorly organised. So, the SCERT undertook with a sense of urgency the development of model textbooks. A workshop was organised for developing detailed syllabus and model textbooks for Class-IX.

The main aim was to help the students do well in the HSLC examination and to lay a foundation from the school level. The Resource Persons were drawn from the Department of Education<sup>1</sup> in Science and Mathematics (DESM) NCERT, New Delhi. The participants comprised of the experienced College lecturers and High School teachers.

The materials were compiled and sent to the schools in the State.

vi. Model Textbook in Science for Class-X

During 1985-86 another workshop, for developing model textbooks in Science<sup>2</sup> for Class-X was taken up as a follow-up  
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1. SCERT – Model Textbook for Class-IX, SCERT, Shillong.
2. SCERT – Model Textbook in Science for Class-X, 1986.

action of the work done earlier. In the development of textual materials an attempt has been made to develop in the students, a clear concept of scientific principles, laws and processes. Attempts have also been made to link science to real life situations. It is hoped that this approach will help not only to create in them an awareness of Science but also help them interact with the environment.

The team of resource persons were drawn from experienced College Lecturers and Principal, Teacher Training Centre. Thirty-three (33) participants from High Schools drawn from all over the State took active part in the workshop. The book was compiled and cyclostyled and sent to Schools.

#### vii. Science Textbooks for Classes VII and VIII

During 1986, through a series of workshop draft materials for Science textbooks for Classes-VII and VIII<sup>1</sup> have been developed. This book has been prepared with the intention of updating the standard of Science Education in Meghalaya at the school level. The instructional materials have been based on the Science syllabus prepared by the SCERT which was yet to be introduced in the Schools of Meghalaya.

While developing the textual materials, efforts have been made to provide a clear concept of the fundamental  
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1. SCERT - Model Textbook for Classes-VII and VIII, 1986.

knowledge of Science to enable students to provide apply in the real life situations. It was expected that students will be motivated to learn Science at the higher level also with the development of the instructional materials.

The books could not be used by the schools since the State has adopted the NCERT books for use in the schools.

viii) A Handbook for Demonstration in Science

Science has been made compulsory in Meghalaya in 1986. There is thus a challenging task before the science teachers. He will have to teach in an interesting way. Evidently, the teacher will have to adopt a new strategy to teach science. The chalk and talk method invariably used by the teachers would have to be supplemented by other more efficient methods.

The modern trend of Science teaching lays stress on the 'activity approach'. This provides first hand experiences which facilitate learning situation.<sup>1</sup> However, many schools do not have science equipment to clarify scientific processes, concepts, principles and laws. It is with this view to help the science teacher to carry out experiment in the class that the present volume has been prepared.

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1. SCERT - A Handbook for Demonstration Experiment in Science, 1986.

B. Area of Language

i) A Little about English

The SCERT has prepared a booklet based on an error analysis of answer books in English of High School Leaving Certificates candidates. The booklet entitled *A Little about English*<sup>1</sup> was published by the Council for use of the English teachers in their classroom teaching.

ii) The Council has also prepared a booklet entitled *Improve English*<sup>2</sup> for the benefit of teachers and students. This was sent to the schools and it was hoped that it would serve as the resource material in addition to the usual reading learning materials used in schools.

iii) The Council has also prepared a Grammar companion called *Correct English for High School* for the benefit of teachers and students.

iv) Standardisation of Khasi Writing - A Seminar was organised by the SCERT involving the experts from NEHU and College teachers with the main objectives to standardise the Khasi Writing and Khasi Spelling Paper<sup>3</sup> on various topics were presented and discussed. In the seminar many bold decisions were agreed upon like the inclusion of letters of -----

1. SCERT - *A Little about English*, 1982.
2. SCERT - *Improve English*, 1982.
3. SCERT - Seminar Papers on the Standardisation of Khasi Writing, 1994.

the English Alphabet into the present Khasi Alphabet. These Papers were compiled and printed into a booklet entitled *Seminar Papers on the Standardisation of Khasi Writing* and distributed to the schools.

C. Area in History

i) Preparation of Local History of Meghalaya :

The SCERT organised a Seminar on the History of Meghalaya<sup>1</sup> where experienced people in the field were involved. The seminar papers were compiled and printed. These were sent to the schools and serve as reference material for teachers in the School for teaching the history of Meghalaya.

ii) Hints on teaching History - The SCERT also prepared and published on local history of Meghalaya, entitled *Hints on Teaching History* and was sent to schools for reference of the teachers.

iii) Reference materials on local history of Meghalaya were also prepared by the History Unit of the Council on the basis of the new curriculum developed in the State. These materials were not printed and serve only as reference materials.

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1. SCERT - Seminar on History of Meghalaya, 1980.

D. Area of Guidance and Counselling

i) A Handbook on Educational and Vocational Guidance was brought out by the Educational and Vocational Guidance Unit of the SCERT. These materials compiled, were those delivered by the expert resource persons of NCERT, New Delhi, when they imparted the one month training held in June 1978 in Shillong for Career Masters/Mistresses. The work was edited and printed and published early in 1982. The same was distributed to the schools for their ready reference.

ii) Be an Engineer - The Educational and Vocational Guidance also compiled the talk delivered by the Counsellor on Engineering and Technology to high school children into a booklet entitled *Be an Engineer* for high school children in 1982-83. Along with this publication, the Educational and Vocational Chart was also published. The chart provides information related to educational and vocational aspects both for Post-High School Leaving Certificate students and Pre-High School Leaving Certificate students.

E. Educational Technology Cell

i) the Primary Teacher Journal published by the NCERT was translated into Khasi and Garo and printed by the Educational Technology Cell for use by the primary school

teachers in the State. These were may (57)<sup>1</sup> in number and have been distributed to the primary school for use in the primary schools.

ii) The Radio Script - The Educational Cell is broadcasting through the All-India Radio<sup>2</sup> a lesson per week for the school teachers in different subject areas. These are mainly concerned with the methods and contents of the new syllabus at different stages of education. But since the coverage of the new syllabus at different stages of education. But since the coverage of the facility of the radio programme could not reach the interior parts of the State, Radio scripts were also compiled in a booklet entitled *Sample of Scripts for Educational Broadcasts* and printed for distribution to such schools.

The booklets serve as reference materials to enrich the knowledge of the teachers in the classroom teaching-learning process.

iii) Publication of Manual on Low Cost Teaching Aids - Most of the schools in the rural areas with their meagre funds cannot meet their basic requirement and teachers have

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1. Report of the Programmes and Activities of the Educational Technology Cell, SCERT for the years 1978-1990. ET Cell Publication No.25, ETC, SCERT.
  2. SCERT - Sample of Scripts for Educational Broadcast, SCERT, Meghalaya, Shillong.

no access to any kind of improvised aids or materials to supplement their teaching.

Teachers must keep pace with the changing educational scene and be well informed about the latest in Audio-Visual techniques, so that they can make the classroom a truly meaningful place for learning to take place.

The major role of audio-visual aids and materials is to give spoken words and printed symbols meaning and life. These materials, if used intelligently, can prove to be far superior to other method of instruction for purposes of motivation retention of facts and fostering of positive attitudes and values. They accelerate the learning process by helping pupils to master more subject matter and to sharpen their learning skills in a shorter time.

The Council had trained a number of teachers in the development of Low Cost Teaching Aids through workshops. However, training programmes cannot cover the huge number of primary school teachers in the State. In order to reach the ideas and practical knowledge of audio-visual aids to all the primary school teachers, a manual on Low Cost Teaching Aids was prepared, printed and distributed free of cost to the teachers. The manual is expected to provide them with necessary know-how along with simple step-by-step illustration.

The fifty page Manual included a list of materials used, simple method of producing the aids, instruction on their use and illustrations on the step-by-step preparation of the aids.

The manual was prepared in English and translated into Garo and Khasi for the full benefit of the rural teachers.

#### F. Education

Publication of Self-Learning Instructional Materials for Non-Formal Centres opened under Project-5 (CAPE) - The SCERT in the implementation of Project-5 on Comprehensive Access to Primary Education assisted by the UNICEF, had developed instructional materials on 1) Literacy; 2) Numeracy and 3) Environmental awareness for use in the learning centres opened in the State with the objective to universalise the primary education. The list is placed at Appendix-VIII.

The materials were developed through series of workshops organised by the SCERT.

#### 5.2:4. Evaluation of Instructional Materials for Classes-I and II

Instructional materials for classes-I and II comprise of 1) Text-book, 2) Teachers' Guide and Workbook. Textbook is the most important instructional material as it can be used by the teacher and the learner in the classroom and by

the learner at home for self-learning. Teachers' guide is to assist the teacher in the process of imparting knowledge and developing expected competence among the children. Teachers' guide can help the teacher for an effective and systematic way of teaching process. Workbook is to help the learner for constant practice in any subject so that facts, concepts and ideas can be automatically mastered by a child.

The subject areas at the primary stage are 1) Language (Mother tongue), 2) Mathematics, 3) Environmental studies, 4) Socially useful productive work/work experience and 5) Art Education or Creative Expression. In Classes-I and II, the SCERT has developed the following instructional materials.

1. Language :

- 1) *Textbook in Language, Book-I*
- 2) *Guidebook for Teachers*
  - a) *Transcription book for Class-I*
  - b) *Workbook for Class-II.*

2. Mathematics - *Text-cum-Guide in Mathematics Book I & II.*

3. Environmental Studies - *Guidebook for Teachers in Environmental Studies for Classes-I and II.*

4. Socially Useful Productive Work - *Guidebook for Teachers in SUPW for Classes-I and II.*

5. Creative Expression - *Guidebook for Teachers in CE for Classes-I and II.*

### 1) Language

While evaluating/assessing the instructional materials in language, it is found that the units presented in the syllabus are not in conformity with those written in the Textbook Book-I and II. While the curriculum plan has units like 'Our Home', 'Story Time', 'Who Am I' Part-I and II', 'Picture Reading', 'Looking After Myself' (Cleanliness, Developing Good Habits, Taking Care of the Sick), 'Size of a Family', 'Roles of Family Members', 'Rules in the Family', 'Differences and Similarities of Animals', 'Animals and their Needs', 'Usefulness of Animals', 'The Dog and his Shadows', 'Animal Stories', 'Poems and Writing', only few of these like 'The Dog and his Shadows', 'Picture Reading', 'Poem and Stories Reading' are included in the textbook.

### Content

The content in the language textbooks (Khasi) specifies mainly listening and speaking skills. The lessons are not properly grade, e.g. lessons which aim at teaching letters through words are not serially sequenced. Presentation of the content is not consistent. In certain chapters, content has not been included while in the rest of the chapters it has been included. Story, poem, picture reading form the different forms of lesson of the text. The language is

impressive but there are some words and phrases which seem to be a bit difficult for Classes-I and II.

### Exercises

Exercises have been included in some of the chapters while the rest do not have them. But the exercises included suggest suitable activities for enrichment of language. The main instructional objectives mentioned covered by exercises in the Readers are listening, speaking and to a certain extent reading. Writing has been included but also in one or two chapters. But handwriting is stressed in a sense that transcription book for Class-I is separately specified for the purpose.

### Illustration

The Reader for Class-I has 29 illustrations in a total of 32 chapters covering 49 pages and Reader for Class-II has 28 illustrations in a total of 21 chapters consisting of 55 pages. These have been appropriately used to explain and generalise the content.

The illustrations are appealing and attractive to the learners except a few which will have to be modified with regard to proportion of the parts of figure.

### Physical Aspect

The physical aspect of the book is satisfactory. The size of the book is suitable for handling by the learners. The Paper used is a good quality paper and the printing is clear and legible except for one or two words. The binding looks durable but the cover page can be improved. It is not so attractive as it is whitepaper cover with a name of the book printed in bold.

But it may be mentioned that the language Textbooks, Guidebook and Workbook are not included in the curriculum prescribed by the MBOSE, Tura.

### 2) Mathematics : A Textbook for Schools Book I and II.

The text-cum-guide book for Primary Schools Book-I is found to be in conformity with the syllabus in terms of specification of instructional objectives or competencies listed down for different units in the book. There are 13 units in the Text-cum-Guide for Primary Schools Book-I and 8 units in the Text-cum-Guide Book-II. The Mathematics syllabus is found to be systematic and provides the concepts necessary for clear understanding of the subject. Compared with the old syllabus, it is found that it is easier and attractive to learners. The development of necessary skills is in accordance with the age-group of the learners and thus it is more appealing and interesting.

## Content

The instructional materials for Classes-I and II serve as Textbook, Workbook and Guidebook for teachers. There are three main parts in both the books. The first part is to make the children understand the concept of quantity through examples with which they are familiar. The second part is to help the children know, identify and write down the mathematical numbers. The third part is to know and learn the basic mathematical concept and their symbol like +, -, ×, ÷ in Mathematics but the difficulty level increases with the class.

The Text-cum-Guide book for Class-I has an introduction on the importance of Mathematics and it specifies the instructional objectives, teaching-learning strategies, and system of evaluation in detail. Since this is a text-cum-teachers' guide it is very good since it presents a clear guideline to the teachers. But the instructions to teachers given unit-wise are not also found adequate and are to be improved in terms of language. Proper articulation between units is also found lacking.

## Exercise

As mentioned earlier, the instructional materials in Mathematics for Classes-I and II serve as the textbook,

guidebook and workbook. So adequate exercises have been given but some of the units lack in variety of exercises. The exercises covered in the syllabus emphasise the instructional objectives aimed at.

### Illustrations

There are adequate illustrations given to concretise the concept and the illustrations are specially drawn from the local environment.

### Physical Aspect

The physical aspect of the book is satisfactory to a great extent but it can be improved on the cover page. Hard bound cover page would have been better for careful handling of the learners.

### 3) Environmental Studies

The introductory chapter of the Teachers' Guide in Environmental Studies emphasised the need for including Environmental Studies in the curriculum, explains the objectives, nature and concept of Environmental Studies very clearly. Classroom organisation and the role of teachers have also been mentioned.

The Teachers' Guide is based on the syllabus and it is explanatory, logical and precise. It is found that the

Teachers' Guide enables the teacher to adopt innovative teaching-learning strategies, use local resources to enhance the learning process in the students, emphasize on organising field trip, provides the development of competencies. the organisation and presentation of content is adequate and there is clarity of language. In brief, all the chapters in the guide help in the development of understanding of facts and concepts of Environmental Studies. However, chapter on Water, Our Hill seem difficult for children of Classes-I and II. Again, units like, our food, is not mentioned in the syllabus but unit like Transport and Occupation, the Earth and the Sky mentioned in the syllabus are not included in the teachers' guide.

There is no illustration and exercises are inadequate to find out whether the competencies are attained.

#### The Physical Aspect

The physical aspect of the book is satisfactory. But printing mistakes could have been avoided. The cover-page is not so attractive but on the whole, as the guide is meant for the teacher, so it is not so important for the guide to be attractive.

#### 4) Socially Useful Productive Work

The Teachers' guide in SUPW for Classes-I and II has been based on the syllabus.

The guide consists of two parts - the Introductory chapter and the Learning units. The Introductory chapter is self-explanatory in terms of nature and concept of SUPW. It emphasizes clearly the need for inclusion of SUPW in the curriculum. It explains the objectives of teaching SUPW and contains the salient features of methodology of teaching SUPW. The role of the teachers is specified clearly and suggestion for procedure of evaluation of the pupils achievement is well spelt out.

The second part on the proposed activities for children is based on the need of children and availability of resources. The suggested activities will provide enough scope for exploration, experimentation and practice by the children but there are also activities like in the Unit Food, the sub-unit is Planting of Lettuce. This activity is a bit difficult for children of Classes-I and II since activities at this stage need to be simple and self-expressing type which will essentially relate to cleanliness and observation of work situations in and around the community.

On the whole, the guidebook is found to be satisfactory in respect of presentation, organisation and implementation of the activities. However, use of tools as suggested in

Unit-3 of the Guidebook, may be difficult and not safe for the target group.

There is no illustration and does not also require exercise since the evaluation is done on the activities.

#### 5) Creative Expression

The teachers' guide in Creative Expression for Classes-I and II has been in accordance with the syllabus.

#### Content

The content given in the introduction to explain the concept and nature of art and creative expression is quite relevant. The general goal of the subject and the specific objectives are spelt out in accordance with the national framework for primary school education. It also emphasises on the need for including creative expression in the curriculum. It includes methodology and procedure and assessment.

The design of the course content and the proposed activities takes into account the local need and the traditional arts practised in the State. The learning situations provide enough scope for organising activities both inside and outside the school. The teaching-learning strategies emphasise the need of giving children the experience for free expression. This also suggests the

provision of conducive atmosphere for children's participation in the activities.

### Specific Activities

All specific activities that have been included are within the level of maturity of the children and are found to be locally relevant. The activities discussed in it show that it is child-centered and meets his creative need. Procedure for evaluation of each activities has been included.

On the whole, the guide is found to be very satisfactory in respect of presentation, organisation and language.

Regarding content of the songs included in the lessons, perhaps wording may be included for teachers' reference.

### **5.3. TRAINING AND EXTENSION**

The research findings as mentioned in the section on research activities of the SCERT revealed that there is a very high percentage of untrained and under qualified teachers in the State. Most of the teachers have had long experience of service and hence they can no longer be dismissed or replaced. The only alternative is to improve their competence through constant in-service training. As part of its regular programmes, the SCERT, has organised short-term in-service training programme in the State since

its inception and form the main activities of the SCERT till date.

There are two types of training programmes conducted by the SCERT concerning training programmes on school subject and programmes concerning supporting service to school programmes. Again the training programmes on school subjects, the training programmes organised may be grouped as General Training and Subject-Centered Training. General Trainings are those which were given to all educational personnel including teachers and subject-centered trainings are training programmes meant specifically for subject-area teachers.

The main objectives of the various training programmes organised by the SCERT and the number of beneficiaries of the programmes are presented below :

### 5.3.1. General Training Programmes

1) Training of Heads of Schools<sup>1</sup> for school administration was conducted in May 1978 with the main objective of acquainting the heads of schools with the general administrative principles and practices of school. The training was attended by 105 heads of High Schools all over the State.

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1. SCERT - Report of the Training of Heads of Schools for School Administration, SCERT, Meghalaya, Shillong, 1978.

ii) Continuing Education<sup>1</sup> - This programme was conducted in collaboration with the NCERT with the main objective of giving the pace of change to the teachers who need to be in a permanent state of training for their professional growth. The training was conducted in a span of six months. This programme continued for two years.

In-service training programmes for teachers of English, History, Geography and Science and Mathematics were conducted during 1977-78 and the number of beneficiaries were 640.

During 1979-80, the following in-service programmes were conducted :

a) In-service trainings in General Science and Mathematics for Secondary School teachers.

b) In-service trainings in the teaching of Science, English and Mathematics for Secondary School teachers.

c) In-service trainings for Secondary School teachers.

d) In-service trainings in Geography for Elementary School teachers.

These training programmes during 1979-80 were organised during the summer break (15 days) and winter break (25 days) for 5 hours per day for rural schools. The morning and

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1. SCERT - Report of the SCERT, 1980, State Council of Educational Research, DPI, Government of Meghalaya.

evening classes which were of 2 hours duration each was specifically meant for urban school teachers (three months each). The number of beneficiaries in both the programmes was 163. But due to financial constraints the programme could not continue for long.

iii) The SCERT had also initiated the introduction of the winter school-cum-correspondence course in collaboration with the Regional College of Education, Bhubaneswar for Secondary School teachers, and for primary teachers with the Open School system of Central Board of Secondary Education, New Delhi, to enable them to improve on their qualifications. But this programme did not work out well and thus had to be discontinued.

iv) Another programme organised during 1980<sup>1</sup> was for in-service Primary school teachers of West Khasi Hills at Nongstoin. The main objectives of the programme were to acquaint and familiarise the teacher participants about the methods of teaching in the non-graded system at the primary level, to organise gradation of the contents of the subjects of study and methods of teaching and to find out the method of evaluation to help the children reach the goals of education. The programme was supported by the training materials developed for this purpose entitled *Ka Jinghikai ha*  
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1. SCERT, *Ka Jinghikai ha ki Skul Shaphang ka Non-Graded System*, SCERT, Meghalaya, 1980.

*ki Skul Shaphang ka Non-Grade System*. This booklet was distributed to the teachers for their ready reference.

The programme was attended by 43 primary school teachers.

v) A training-cum-workshop on Micro-Teaching was conducted by the Educational Unit of Council during 1980.<sup>1</sup> This programme aimed at improving the teaching competence of in-service teachers and students-teachers. The programmes were held in all the different districts headquarters at Shillong, Jowai and Tura. These programmes were attended by more than 80 high school teachers.

vi) A short-course in Library Science<sup>2</sup> for Middle and High School teachers was organised in 1980 with the main aim of acquainting the teachers the indispensability of library facilities in the school and to help them to inculcate in the children the good habit of reading. The programme was attended by a 80 high school teachers and M.E. school teachers.

vii) Orientation courses for the Principals of Elementary Teacher Training Institutes - There were three

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1. SCERT - State Council of Educational Research and Training, Meghalaya, Shillong - A Report for the Advisory Council Meeting, 1982.
  2. SCERT - A Report on the Library Science Workshop for School Teachers, SCERT, Meghalaya, Shillong, 1980.

training-cum-orientation courses<sup>1</sup> conducted by the SCERT in 1980-81 at SCERT hall, Shillong. These orientations were meant to acquaint them with the development and implementation of the new syllabus.

viii) Two orientation courses for the Deputy Inspector of Schools and Sub-Inspectors of Schools of the State were taken up in 1980-81 to acquaint them with the implementation of new syllabus in the State. The programme was attended by 3 Deputy Inspectors of Schools and 6 Sub-Inspectors of Schools in the State.

ix) Training of Teacher Educators - The trainings of Teacher Educators were conducted from time to time. These trainings were meant for the general competence of the teacher educator in the development of the syllabus, implementation of the syllabus and development and implementation of new instructional materials.<sup>2</sup>

x) a) Training of Primary School Teachers - The trainings of Primary teachers on Methods and Techniques of Teaching was conducted with the aim of equipping the teachers with the psychological techniques and methods of handling the school children for better classroom teaching learning. the programme was conducted at five different centres - Jowai,  
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1. SCERT - A Brief Report of the SCERT, Meghalaya, Shillong, for 1982-83.

2. SCERT - Report of the EVGB, SCERT (Mimeography), 1986-87.

Nongstoin, Shillong, Pynursla and Mawkyrwat during 1986-87. The programme was supported by the training package developed by the SCERT for the purpose. This programme was continued till 1990-91 and was spread in the other parts of the State. The total number of beneficiaries was 1000 primary school teachers.

b) Training of Teachers of Single Teachers Schools<sup>1</sup> - 326 teachers of Single Teacher Schools were trained in the techniques of running single teacher schools throughout the State during 1987-88, i.e. Shillong, Nongstoin, Tura, Williamnagar and Jowai.

x1) Massive Orientation Programme - This programme was conducted by the SCERT with financial assistance received from NCERT, New Delhi. This programme was conducted with the main objective of acquainting the teachers, with the New Education Policy 1986. In the first phase, the training of the Resource Persons was conducted which included the District Education Officers, the Science Supervisors, the Teacher Educators and the experienced headmasters/headmistresses and lecturer of SCERT. The programme was attended by 65 participants. These resource persons in turn gave training to teachers at all levels starting from 1987 to -----

1. SCERT - A Brief Report of the SCERT (Mimeography), 1988, State Council of Educational Research and Training, Meghalaya, Shillong.

1990. The number of teachers who attended these courses was 2564 Primary Schools teachers, 1042 Middle School teachers and 1051 High School teachers.

xii) Training of Primary School teachers was also conducted in 1992-93. This programme was conducted on modification of teachers behaviour for better classroom teaching and learning process. It was attended by 350 primary school teachers.

xiii) Training of Primary School teachers on the implementation of the new school syllabus was conducted by the SCERT during 1992-93 at the different training institutes of the State. The programme was attended by 1000 primary school teachers.

xiv) Training on Humanities - The SCERT through the Language Unit conducted a special training on humanities<sup>1</sup> (called Crash Training Programme) which consisted of Language, Social Science, SUPW, Creative Expression for Primary School teachers. Science and Mathematics was not included since this has been taken care in the in-service training for Science and Mathematics. This programme was conducted for upper Primary School teachers with the main aim of orienting them in the methods and content of the new syllabus.

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1. SCERT - Reports of the SCERT (Mimeography), 1994-95.

The programme was conducted in 1993-94 and 1994-95 and the number of participants 740 and 315 respectively.

xv) Special Orientation Programme for Primary School Teachers (SOPT).<sup>1</sup> This is a centrally sponsored scheme which was implemented by the SCERT and was meant for Primary School teachers. The main aim of the programme is to acquaint the primary school teachers with the implementation of Operation Blackboard Scheme initiated by the Government of India and to orient the teachers in the competency based instruction. The programme was first organised for Resource person in the State and was attended by 50 participants consisting of the field educational personnel and trained heads of the High Schools. These resource persons in turn trained the primary school teachers in 13 training centres all over the state starting from 1993-94 and it will continue till 1996-97. The number of participants during 1993-94 and 1994-95 were 1716 and 1700 respectively.

xvi) Five-Day Workshop on Inspection and Supervision for Inspecting officers was conducted in 1993 with the main aim of acquainting the inspecting officers with the modern techniques of inspection and supervision with the provision in the declaration of National Policy on Education 1986 and -----

1. SCERT - Brief Report on Special Orientation Programme for Primary Teacher in Meghalaya, 1995, SCERT, Meghalaya, Shillong (Mimeography).

the implementation of new curriculum in the State. In the workshop drafting of a Handbook for Inspection and Supervision was also taken up. The programme was well-attended by 17 officers.

xvii) Workshop for finalisation of the Handbook on Inspection and Supervision for Inspecting Officers and the Heads of Schools.<sup>1</sup> The programme was organised for the inspecting officers during 1993. With the involvement of experts from NIEPA, New Delhi, NEHU, Shillong, and the SCERT personnel, the Handbook was finalised and was printed for wide circulation. The programme was attended by 14 participants.

xviii) Workshop for Finalisation of Inspection and Supervision Proforma - The draft proforma prepared during the five-day workshop on Inspection and Supervision was finalised during the 3-day workshop during 1995 under the expert guidance of Professors from NEHU. The programme was attended by the Inspecting Officers and SCERT lecturers. The proforma was finalised and moved to the government for necessary appraisal for implementation of the same.

The number of teachers trained for all levels under different programmes may be presented as below :

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1. SCERT - Inspection and Supervision, State Council of Educational Research and Training, Directorate of Education, Government of Meghalaya, September, 1995.

**5.04 Number of Teachers Trained under General Training Programme**

Sl. No.	Name of the Programme	Number of Teachers trained			
		Primary	Middle	High School	Total
1.	Training of Heads of school administration	-	-	105	105
2.	Continuing Education	-	640	163	803
3.	Winter-cum-Correspondence	-	-	-	NS
4.	In-service teachers in Non-Graded System	43	-	-	43
5.	Training-cum-Workshop on micro-teaching	-	-	80	80
6.	Short course in Library Sc. for ME & HS teachers		80 (ME + HS)		
7.	Orientation course for Principal, Elementary Teacher Training Institute				6*
8.	Orientation course for the Deputy Inspectors of Schools and Sub-Inspectors of Schools in 1980-81				29*
9.	Training of Teacher Educators				25*
10.	a) Training of Primary Schools on methods & Techniques	1000			1000
	b) Training of Single Teacher Schools	326			326 +65(RPs)
11.	Massive Orientation Programme	2564	1042	1051	4657

12. Training of Primary Teachers on Modification of Teachers' behaviour	350			350
13. Training of Primary Teachers on the Implementation of the New School Syllabus	1000			1000
14. Training in humanities	740	315	190	1055
15. Special Orientation Programme for Primary School Teachers	3416	-	-	50RP 3416
16. Workshops for Inspecting Officers (3 workshops)				17 16 14
				45
<b>Total</b>	<b>9439</b>	<b>2077</b>	<b>1589</b>	<b>13,105</b> <b>+ 252*</b>

NS = No statistics

\* = The statistics regarding beneficiaries of Teacher Educators, Inspecting Officers and Resource Persons and the total was 252.

### 5.3:2. Subject-Centred Training

#### 1) Science and Mathematics

The SCERT through its Science and Mathematics Units has undertaken many programmes and activities which include the teacher-in-service programme, the improvement of curricular material and the students enrichment programme.

In the in-service training programme, in view of the fact that there was high percentage of untrained and under qualified teacher, the SCERT felt that in-service programme should form a regular feature. Thus, in-service training

programmes in Science and Mathematics were conducted at all stages of education for teachers all over the State.

The main objectives of the in-service training programmes were :

1) to enrich the content knowledge of the teachers as well as to acquaint them with the methodologies to be adopted in the teaching of Science and Mathematics.

2) to help clarify the difficult terms and concepts, processes, etc. connected with the teaching of Science and Mathematics.

3) to help them plan and carry out the demonstration pertaining to the teaching of Science.

From 1977-78 to 1984-85 the efforts were single handedly made by the SCERT alone but during 1985-86 to 1990-91<sup>1</sup> the implementation of in-service training programmes of SCERT in Science and Mathematics was strengthened by the implementation of the scheme 'Improvement in the Standard of Science and Mathematics Education in the Hill Areas' under financial assistance from North-Eastern Council (NEC). The scheme was prepared by the SCERT and submitted to the government for approval. The details of training programmes conducted year-wise is given below :

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1. SCERT - A Brief Consolidated Report of SCERT, Meghalaya, Shillong, 1988-89.

**5.05 : Number of Teachers Trained in Science and Mathematics**

Year	Number of Teachers Trained			
	Primary	Upper Primary	High School	Total
1977-78	-	180	-	180
1979-80	-	112	-	112
1980-81	81	52	41	174
1981-82	-	-	141	141
1982-83	92	88	-	180
1987-88	146	182	78	406
1990-91	57	34	-	91
1991-92	-	-	140	140
1993-94	-	273	164	437
1974-95	-	-	145	145
<b>Total</b>	<b>376</b>	<b>921</b>	<b>709</b>	<b>2006</b>

11) Language

The SCERT through the Department of Language conducted many in-service training programmes for teachers at different stages of education. As revealed by the research findings outlined earlier the failure of HSLC students was found to be mainly due to their weakness in English. So, the Council organised in-service training programmes with the main objective of making them competent in the teaching of Language in classroom for better teaching and learning.

Besides, the programme 'Teach English' was broadcast through the All-India Radio, Shillong, by the Educational Technology Cell for the benefits of English teachers with the help of experienced teachers.<sup>1</sup>

The detailed training programme under language is presented below :

#### 5.06 Number of Teachers Trained in Language

Year	Number of Teachers Trained			
	Primary	Upper Primary	High School	Total
1976-77	-	90	-	90
1978-79	-	188	-	188
1980-81	-	285	-	285
1981-82	-	-	29	29
1984-85	20	-	29	49
1985-86	-	40	-	40
1986-87	-	-	200	200
1987-88	-	50	20	70
1988-89	78	-	-	78
1989-90	82	-	-	82
<b>Total</b>	<b>180</b>	<b>653</b>	<b>278</b>	<b>1111</b>

1. SCERT - Report of the SCERT 1980, State Council of Educational Research and Training, Government of Meghalaya, Shillong.

SCERT - Report of the SCERT, 1990-91, SCERT, Meghalaya, Shillong (Mimeograph).

From 1990-91, the unit of language in SCERT was organising the training programme concerning the general training mentioned earlier. So the training for language in particular was suspended for sometimes.

111) History/Social Studies

In the first few years of its existence the SCERT through the History Unit launched in-service training courses<sup>1</sup> in history for teachers at Middle and High School level. With the implementation of the new curriculum in the State, the scope of the in-service training programme was widened to include other subjects like Economics, Civics, Geography besides History.

The main objective of the programme was to impart to the school teachers the contents and methodologies of teaching the subject. The details of training programme with number of beneficiaries are given below :

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1. SCERT - Report of the SCERT, Meghalaya, Shillong, 1980, SCERT, Meghalaya, Shillong.

### 5.07 Number of Teachers Trained in History/Social Studies

Year	Number of Teachers Trained			
	Primary	Upper Primary	High School	Total
1977-78	-	180	-	180
1978-79	-	74	-	74
1979-80	-	103	-	103
1980-81	-	-	30	30
1981-82	-	-	43	43
1991-92	-	-	288	288
1992-93	-	-	382	382
1993-94	-	-	322	322
1994-95	-	-	264	264
<b>Total</b>	-	357	1339	1686

iv) Socially Useful Productive Work (SUPW) and Creative Expression (CE)

Socially Useful Productive Work (SUPW) and Creative Expression (CE) form an integral part in the new syllabus at all levels of education. The training programme for SUPW and CE was started only in 1992-93<sup>1</sup> and continued till today i.e. 1995-96. The main objective of the programme was to acquaint teachers with concepts of the new subject-areas and to train

1. SCERT - Report of the Education Unit, SCERT (Mimeography) 1992-93, SCERT Meghalaya, Shillong.

them in the basic skills in SUPW for implementation of the subject in the classroom. The number of beneficiaries was 564 for four consecutive years and were all upper primary school teachers as shown below :

#### 5.08 Number of Teachers Trained in SUPW and CE

Year	Number of Teachers Trained			
	Primary	Upper Primary	High School	Total
1992-93	-	157	-	157
1993-94	-	166	-	166
1994-95	-	134	-	134
1995-96	-	107	-	107
Total	-	564	-	564

#### 5.3.3. Supportive Programmes

As mentioned earlier, the training programmes of the SCERT was supplemented by programmes of other Units of SCERT which do not involve directly in the training of the teachers but put across the inputs for qualitative improvement of School Education in the State. These are in the area of Educational Technology, Guidance and Counselling and students improvement programme given by the units of SCERT. These may be mentioned below :

1) Educational Technology Cell

The Educational Technology Cell was established in 1978 to promote the utilisation of educational technology for improving both the quality and coverage of education. Till 1982-83, the Cell programmes were cent per cent financed by the Central Government.

During 1978-79, the SCERT through the Educational Technology Cell had made arrangement with the All-India Radio to broadcast improvised classroom materials through the Radio.

Another programme that the Council had taken up was the programme on 'Teach English' programme for teachers of middle stage. The main objectives was to train teacher in English as part of in-service training programme through distance education.

With the realisation that teachers need training in other subject areas also, the 'Teach English' programme was recast and the same was continued under the Scheme "Promotional Project for using Radio in Education Institutions".

Training of Script Writers

To make the Radio programme effective, good scripts are a must which can be ensured only when the script-writers are creative and know the art of script-writing. As such, it was

necessary to build up a team of creative and resourceful script-writers. Therefore, the Council organised a workshop for script-writers both at the district and at the State levels. The teachers were trained in the production of radio-script in different subject areas like Social Studies, Science and Language. Selected Script were then edited and used for the programmes broadcast over the radio for teachers. The Scripts were designed to help the classroom teachers and in the process, the classroom learners.

#### Continuous Enrichment Programme

To ensure the utilisation of the radio educational programmes, the schools were distributed with radio sets. The number of radio-sets distributed to Primary and Middle Schools till 1987-88 were 527. From 1988-89 the radio sets were replaced by two-in-ones and under the Scheme INSAT Utilisation Programme. The number of sets with blank cassettes distributed was 3867 till 1993-94.<sup>1</sup>

#### Preparation of Low/No Cost Teaching Aids

Most of the Primary Schools in the State are found to be ill-equipped. teaching aids, toys, game-materials, etc. are necessary to the classroom instruction more effective,  
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1. SCERT - E.T. Cell Schemes of Activities for 1993-94, SCERT, Meghalaya, Shillong (Mimeography).

attractive and lively and thereby check the high percentage of drop-outs. It is not possible to provide to all the schools the essential teaching aids. If teachers are provided with necessary know-how to use the existing resources from their immediate environment they will be able to prepare low or no cost teaching aids, game materials, toys on their own or with the help of their pupils. To equip them with the theoretical and practical knowledge on this aspect, workshop for the production of Low Cost teaching aids were held at the State and District Centres and 285 teachers were trained.

Child to child centres<sup>1</sup> were opened with the objectives of developing in children the capacity to handle facts, problems and different situations at their level, stimulating them to identify themselves with the environment and awaken in them a concern to take care of it and enabling the children to take care of their siblings. Till 1993-94, the centres were increased from 5 to 14.

## 2) Educational and Vocational Guidance Service

In the area of educational and vocational guidance, the Council through the findings revealed by the survey on manpower requirements as mentioned earlier under Research

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1. SCERT - Manual on Child to Child Activities, ETC Publication, No.26, 1992, ETC, SCERT.

activities had reported the unplanned prosecution of studies by the tribal students in Meghalaya. In view of this fact, the Council organised the First training programme of Career Masters/Mistresses for one month with effect from 1st June 1978<sup>1</sup> for High Schools teachers. The main objectives of the training was to make them aware of the need of giving guidance in Schools and to familiarise them with the different services in the guidance programme. The programmes was attended by 20 High School teachers.

The training programme continued almost every year and the number of teachers trained in Guidance and Counselling was 399 till 1994-95.

Workshop-cum-Training Career Masters/Mistresses was being conducted by the Council through the Educational and Vocational Guidance Unit. The Resource Persons were also drawn from the Directorate of Employment and Craftsmen Training besides the officers of the SCERT. In the workshop, development of charts and posters both on educational and vocational aspects of guidance was taken up. It is hoped that these will in turn serve as resource materials for career conferences conducted every year.

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1. SCERT - Handbook on Educational and Vocational Guidance, SCERT, Meghalaya, Shillong, 1978,

As mentioned above, Career Conferences<sup>1</sup> are regular feature of the Council. These conferences are organised in almost all the districts of the State for the benefit of High School students. The number of students covered under this scheme till 1994-95 were 9,753 High School students. Resource Persons were drawn from various career fields besides the Counsellors of SCERT.

In the educational and vocational services, the Council through the Counselling Unit has undertaken many activities which are regular in nature. These are :

#### Information Service

i) Collection of educational and vocational information mostly in the form of prospectus newsletter, brochure etc. on various educational fields.

ii) Classification of information for efficient dissemination.

iii) Dissemination of the information to students, teachers and parents.

iv) Preparation of educational and vocational information.

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1. SCERT - A Brief Consolidated Report of SCERT, Meghalaya, Shillong, 1988-89, SCERT, Meghalaya, Shillong.

### Pupil Inventory Service

Cummulative Record Cards were distributed to the teachers for keeping students' individual records. These cards kept sufficient information on individual students and were used whenever counselling cases were to be dealt with. This helps the Counsellor to know their needs and to help promote the education and career guidance in schools.

### 3) Educational Evaluation Unit

In the area of Educational Evaluation, the first effort of the SCERT was when SCERT invited Prof. H.S. Srivastava, Head of the Examination Reform Unit, NCERT, New Delhi. He delivered a talk on 22nd March 1978<sup>1</sup> to teachers and heads of institutions. In this talk, he showed the merits and demerits of the present system of examination and stressed for reforms. He also talked about the present problems with which we are now faced especially the syllabus and setting of questions. He also spoke of the internal assessment and grading system which should be continuous.

A good number of teachers and Heads of institutions attended the meeting. It was also attended by the Secretary, MBOSE besides the officers of SCERT. Dr. C. Wolflang, the then OSD, presided over the meeting.

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1. SCERT Newsletter, 1978.

In the area, SCERT initially introduced reforms through various workshops. One such workshop was the Ten-day State Level Workshop<sup>1</sup> which was held at Shillong in June 1981. Experts from the Department of Measurement and Evaluation, NCERT, New Delhi and others were invited to guide and assist SCERT.

With their cooperation, resourcefulness and contribution, the SCERT has been able to develop the materials comprising of :

i) Critical analysis of Question Papers (1981) in Mathematics and Elementary Scientific knowledge of Meghalaya Board of School Education.

ii) Model (improved) Question Papers in Mathematics and Elementary Scientific Knowledge for HSLC level.

iii) Unit Tests in selected units in Mathematics and Elementary Scientific Knowledge.

iv) Objective-based question in Elementary Scientific Knowledge.

The book was distributed to the schools and it has helped and guided the teachers in their day-to-day internal evaluation of their students.

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1. SCERT - Setting Better Questions, Model Questions and Question Papers in Mathematics and Elementary Scientific Knowledge for High School Stage, SCERT, Meghalaya, Shillong, July 1982.

This book also served as the based material for the orientation course conducted for the school teachers in the area.

Another programme in the area of educational evaluation and examination reforms was organised by SCERT in History. In an attempt to orient all concerned in the concept and techniques of evaluation, the SCERT organised a ten-day programme for developing Sample Model Questions Papers in History from 5th to 14th April 1982<sup>1</sup> under the expert guidance of three personnel from the Department of Measurement and Evaluation, NCERT, New Delhi.

Twenty High School teachers drawn from various schools in different parts of the State participated in the workshop. While examining the present system of examination which is essay type, it is found very defective and it is only the means for grading pupils and giving them a certificate.

Some measures have been formulated during the workshop to overcome the defects and also to bring about improvement on the existing question-papers. These were :

i) Instructional objectives must be selected both for teaching and learning as well as for evaluating the subject too.

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1. SCERT - Report on the Workshop for Developing Model Question Papers in History, SCERT, Meghalaya, Shillong, 1982.

ii) A design should be prepared wherein due weightage be given to objectives, content and forms of question.

iii) To make the language and wording simple and clear for the pupils to know and to understand exactly what answers should be given.

iv) Options have been practically eliminated except for the essay type of question for a better content coverage and also for eliminating selective study.

v) A detailed marking scheme be prepared to ensure proper allotment of marks to the questions according to the difficulty.

vi) Clear instructions are given for the pupils to read before attempting the questions.

During the Ten-day Programme, instructional objectives of History at Secondary Stage were specified and a design of the sample question paper in History for class-X was also done along with the Blue Print Sample Question Paper of HSLC Examination-Meghalaya was also detailed out along with question-analysis.

The report of the workshop was compiled in a brochure which was circulated to the schools in the State, to implement it in every possible way.

The third attempt of the Council in the area was again in Mathematics and Science. This was done in 1993 by the Evaluation Unit of SCERT in a similar manner as conducted

earlier. But this time, the workshop was based on the new syllabus implemented in the State.

viii) Implementation of UNICEF Assisted Projects : With the acceptance of the three projects in the State in May 1979, the Education Unit of the SCERT had been entrusted with the planning and monitoring of these projects : 1) Primary Education Curriculum Renewal, Project-2; 2) Developmental Activities in Community Education and Participation (DACEP) on Project-3 and comprehensive Access to Primary Education (CAPE) on Project-5. All these three projects were vitally linked with universalisation of Elementary Education. A series of training programmes were organised by the SCERT in the implementation of these projects in the State.<sup>1</sup>

#### 4) Student Enrichment Programmes

Student enrichment programmes are also taken up by the SCERT. These form the major work of the Council which were conducted by different units of the Council. These are as detailed below :

In the areas of Science and Mathematics the following schemes are taken up to tap, nurture and guide the tribal students in Science and Mathematics education.

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1. SCERT - Progress Report on UNICEF-Assisted Projects II, III and V, Meghalaya, 1981-82, SCERT Meghalaya, Shillong.

a) Special Coaching Class in Science and Mathematics were started in 1978-79 at 5 centres and were increased to 55 centres in 1994-95 in the State (47 rural and 8 urban). The main aim of the programme is to popularise Science and Mathematics and to lay foundation in these important subjects. From 1981-82 similar coaching classes in the teaching of English were also given in these centres.

b) State Talent Search - The Statistics units of the SCERT conducted annually State Talent Search at two levels. One at the close of Class-X and the other at the close of Class-VI. The main objective of the scheme is to provide the educational facilities to rural students so as to encourage them to take up science study. The incentive awards are given as follows :

i) At the close of class-X - The first 30 students are given awards at the rate of Rs.100/- for non-hostellers and Rs.150/- for hostellers up to P.U. Science Course.

ii) At the close of Class-VI - The first 50 students are given incentive award of Rs.60/- p.m. and the lumpsum book grant of Rs.200/-.

The above awards are strictly based on merit in the competitive examination conducted by SCERT.

c) National Talent Search - This is a scheme of the NCERT implemented by SCERT. The Intelligence Test Examination

is being held every year and the procedure of selection is done at two stages :

- 1) HSLC conducted by the MBOSE, and
- 2) Examination conducted by SCERT provided one gets 50 per cent marks in Science and Mathematics. Those who qualify at the State level are eligible for the National level test. Twenty-five (25) students are selected at this stage.

d) National Scholarship for Talented Children of Rural Areas - This is a Government of India scheme for identifying talented students from rural areas and providing scholarships to enable them to go for better quality education. Those who obtain 50 per cent and above marks in the aggregate are eligible to appear in this examination. The final stage examination conducted by the SCERT is in the form of a Test in Mathematics, Science and General knowledge.

The distribution of scholarship is as follows :

- a) General category - 3 scholarships per block
- b) Children of landless labourers - 3 scholarships per block
- c) Scheduled Tribe - 3 scholarships per block
- d) Scheduled Caste - 3 scholarships per block

e) Coaching Classes for P.U. Science Tribal Students of Meghalaya - The scheme aims to bridge the gap between the HSLC course and the PU(Sc.) course and to lay a strong

foundation for the tribal students to obtain the best possible results at PU level. But the programme was discontinued with the implementation of new Science syllabus.

f) Special Coaching Classes to Private HSLC Students

- The analysis of HSLC done by SCERT revealed that the failure of private candidates is higher than the regular candidates. In order to wipe out the huge number of failures among the private tribal students in the HSLC examination the Council has been organising special coaching classes in five major subjects, i.e. Mathematics, Science, English, History and Geography for a period of 6 months. This scheme was started in the district headquarters and now is extended to 15 centres throughout the state. This was thought necessary to clear the backlog of the old system private candidates and to assist those students who are deprived of formal schooling.

g) The Council had also conducted a Proficiency Test for class-VI and class-X children with the main aim to encourage them to do well in the examination in English. An incentive award to 10(ten) awardees at the end of class-VI was awarded at Rs.100/- per month plus a book grant and Rs.150/- to selected awardee at the end of class-X.

h) Youth Parliament<sup>1</sup> meets were also organised to train the students in parliamentary procedure and techniques of group discussion and group behaviour. This is helping to make them aware of the problems facing the society and the country and to develop in them the leadership quality. Prizes in the form of books are given to the three best participants and three consolation prizes are also given. But this programme was stopped when the Department of Law and Parliamentary Affairs, Government of Meghalaya, started the National Youth Parliament and Quiz Competition.

#### 5.3.4. Extension Services

The SCERT has been active in providing extension service to field level institutions in the entire State. Since its inception, the personnel of the Council were invited to present papers in the seminars, act as resource persons in different training programmes and strengthen the working of the School Board (MBOSE) through provision of expert advice sought by them in the development of curriculum and orientation programme in the implementation of the curriculum.

The private schools or non-governmental organisations were looking to SCERT for expert advice and extension

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1. SCERT - A Brief Report of the SCERT, 1988 (Mimeography), SCERT, Meghalaya, Shillong.

services were given whenever necessary. The following were the programmes<sup>1</sup> conducted by the SCERT for the various groups in the State for which no assistance was received from the Government.

#### 5.09 : Extension Services

<u>Name of the Programme</u>	<u>Date</u>	<u>School/Area</u>
1. Seminar	14-15 June '82	St. Paul's HS, Marbisu
2. 2-Day Seminar	9 & 10 Sept.'82	St. John Bosco Girls' HS, Cherrapunjee
3. 1-Day Seminar	17 July '88	Nongspung High School, Nongspung
4. 1-Day Seminar	27 July '88	Pine Brook School, Umiam
5. Seminar	March '90	MeSEB Primary, ME and High School
6. Seminar	April '90	Nongrum Area Teachers' Conference
7. 1-Day Seminar	16 Feb.'91	Laitumkhrach Presbyterian HS
8. 6-Day Orientation	1-6 Apr.'91	H.L. Mizo HS, Happy Valley
9. 2-Day Training of L.P. & M.E. Teachers	3-4 Jul.'91	RCLP & ME School, Nongpoh
10. 2-Day Training	3-4 Sept.'91	Mairang Area
11. 1-Day Training	13 Aug.'	Teachers Conference
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1. Unpublished notings from file of SCERT, Meghalaya, Shillong.		

12. 1-Day Training	19 July '91	Mairang Sub-Division
13. 1-Day Meeting	7 Oct. '91	Teachers Conference, Mairang
14. 6-Day Meeting	16-21 Sept.'91	Sacred Heart Boys' L.P. School
15. 3-Day Training	19-21 Sept.'91	St. Mary's L.P. School
16. 5-Day Training	13-18 Jan.'92	Unitarian L.P. School Nongthymmai
17. 5-Day Training	7-11 Jan.'92	Jongksha L.P. School
18. 5-Day Training	14-18 Jan.'92	Mawlai
19. 5-Day Training	4-8 Feb.'92	Pynursla
20. 5-Day Training	11-15 Feb.'92	Nongthymmai
21. 3-Day Training	19-21 Feb.'92	Umlyngka, Mawklot
22. 1-Day	4 Feb.'92	Laitumkhras Presbyte- rian High School
23. 4-Day	3-6 Feb.'92	St. Mary's School
24. Training in SUPW and CE	1st week of March '92	Laitumkhras Bengali Girls High School
25. Training in the Implementation of New Curriculum	16-20 Mar.'92	KJP High School Shillong
26. Training of LSEO/ SEO	21-24 Apr.'92	Shillong
27. Short-Term Training Programme	15-16 Oct.'93	Committee of Lum Shillong District
28. 3-Day Training	28-30 Oct.'93	Laban Presbyterian High School
29. 5-Day Training	20-24 Mar.'94	Unitarian L.P. School, Nongthymmai
30. 5-Day Training	8-13 Apr.'95	Mawlai District.

#### **5.4:0 Evaluation of Training Programmes of SCERT Responses of Teachers toward the Training Programmes**

As mentioned earlier, training programmes formed one of the main activities of the SCERT since its inception. The training courses so far conducted pertained to different subject areas of the school curriculum and covered teachers of the State at different stages of education. In order to assess the effectiveness of these programmes, a follow-up study of the training programmes was taken up. The programmes chosen were the following :

i) In-service Training in Science and Mathematics for High School teachers and Upper Primary School teachers.

ii) Training-cum-Workshop on Socially Useful Productive Work for Upper Primary Schools and

iii) A Special Orientation Programme for Primary School Teachers (SOPT).

The investigator prepared three different types of questionnaires for the follow-up study of these three programmes. These are given in detail in their respective sections.

#### **5.4:1 In-Service Trainings in Science and Mathematics**

This programme was undertaken by the SCERT following an earlier survey finding (Reports of SCERT) that one of the factors responsible for the low standard of Science education in the State was the high percentage of untrained and

underqualified teachers in the schools. So, to alleviate the situation, and to improve science education the Council felt that in-service training programmes in Science and Mathematics should be a regular feature. With this aim in view, in-service training programmes was conducted from 1977. The number of teachers trained during 1977-1995 was 376, 921 and 709 for Primary, Upper Primary and High School teachers, respectively.

A questionnaire was specifically prepared for the programme. The first part of the questionnaire dealt with the type of schools, location of the schools the teachers come from, academic qualification of teachers and their experience. Then the investigator sought information on (i) the attendance of teachers in this training programme; (ii) their responses on the adequacy and its duration; (iii) the training objectives; (iv) resource persons employed; (iv) content of the training; (vi) methods of teaching at the training, (vii) their overall assessments of the programmes and (viii) their suggestion to make the training programme more relevant.

The questionnaire was served to the beneficiaries of this training course. Out of 1630 secondary and upper primary teachers, 200 school teachers were taken as sample at random from all the different districts of the State. Out of 200 teachers, 126 respondents (68 High School and 58 Upper

Primary Schools) returned the questionnaires. Their responses were scored, tabulated and analysed. The data were separately tabulated for the two stages of education. The findings are presented in the following sections.

### 5.10 General Information about the Respondents

	Type of School		Location		Academic Qualification					Experience		Sex	
	Govt.	Non-Govt.	Rural	Urban	MA/M.Sc.	BA/B.Sc. with B.Ed.	BA/B.Sc.	PUC	HSLC	5 Yrs. above	Below 5 Yrs.	Male	Female
HS	11	57	45	23	1	17	48	2	-	34	34	66	2
%	16%	84%	66%	34%	2%	25%	70%	3%	-	50%	50%	97%	3%
UP	11	47	35	23	1	4	8 BA 10 B.Sc.	26	9	33	25	26	31
%	19%	81%	60%	40%	2%	7%	14 } 17 } 31%	45%	5%	57%	43%	45%	55%

Table 5.10 above shows that at the High School stage, majority of teachers who attended the training were from non-government institutions and were mostly (66 per cent) from rural areas. Most of the teachers (70 per cent) were graduates and only 25 per cent of them were with Bachelor of Education degree and only 3 per cent were with Pre-University qualification. The experience of 50 per cent of teachers was 5 years and above and others had less than 5 years of experience. At the Upper Primary stage, like the High School stage, majority of teachers (81 per cent) were from non-

government institutions and (19 per cent) from government institutions. 60 per cent of them were from rural schools and only 40 per cent from urban schools. There is difference of academic qualification between the two stages. At the Upper Primary about 50 per cent were with FUC qualifications and matriculation and only 31 per cent were graduates (14 per cent were BA and 17 B.Sc.) and only 7 per cent were graduates with B.Ed. degree and 2 per cent post-graduate. At the High School stage 97 per cent was male respondents and 3 per cent female respondents whereas the Upper Primary has almost similar percentage of male and female respondents (45 per cent to 55 per cent respectively).

#### 5.11 Duration of Training Programme

	Attendance at SCERT Programme		Adequacy of Duration		If No, was it Short ?	
	Y	N	Y	N	Y	N
HS	68	-	12	56	41	27
%	100	-	18%	82%	60%	40%
ME	58	-	9	49	49	9
%	100	-	16%	84%	84%	16%

Table 5.11 shows that all respondents at the High School and Upper Primary Stages have attended the training programme conducted by SCERT and both the groups (82 per cent of High School and 84 per cent of Upper Primary School)

agreed that training duration was inadequate. 60 per cent of High School and 84 per cent Upper Primary teachers felt it was too short.

### 5.12 Objectives of the Training Fulfilled or Not

	Whether objectives clearly stated		How far these were achieved		
	Y	N	GE	SE	NA
High School	44 65%	24 35%	15 22%	48 71%	5 7%
Upper Primary	40 69%	18 31%	27 46.5%	31 53.5%	-

Table 5.12 shows that 65 per cent of the High School teachers and 69 per cent of Upper Primary teachers stated that the objectives of the training objectives were clearly stated. The two groups differed their views regarding the achievement of the training objectives while 71 per cent of High School teachers felt that the training objectives were achieved to some extent only, a good percentage (46.5 per cent) of the Upper Primary groups felt that the training objectives were achieved to a great extent and 53.5 per cent said it was achieved to some extent only.

### 5.13 Competence of Resource Persons

	Resource Person		SCERT	Were they trained ?		If No, suggestions	
	School Teacher	College Teacher		Y	N	Be drawn from SCERT	Conversant with the subject
High School	-	62	6	26	42	42	26
		91%	9%	68%	62%	62%	38%
Upper Primary	9	-	49	49	9	-	-
	29%	-	81%	81%	29%	-	-

Table 5.13 shows the responses of teachers on the competence of resource persons. There is a difference in the responses of the high school group and upper primary group on this question regarding resource persons. Most of the High School (91 per cent) stated that the resource persons were drawn from the college and 9 per cent of them stated that they were from SCERT. 68 per cent stated that these were trained and 62 per cent felt these were not trained. On the contrary, the Upper Primary School teachers (81 per cent) revealed that the SCERT personnel were the resource persons during the training programmes and felt that the resource persons were competent and trained. Only 29 per cent said they were not. The suggestions that 62 per cent High School teachers gave was to employ the SCERT personnel for the programme.

### 5.14 : Content of Training

	Whether content cover			Whether curricular changes are taken care of		If yes, what are they ?			
	Syllabus	Techniques of teaching	Demonstration/Experiment	Yes	No	MLL	Environmental awareness	Child centred approach	Effective teaching techniques
High School	59	9	-	53	8	21	29	13	5
	87%	13%	-	78%	12%	31%	43%	19%	7%
Upper Primary Schools	51	7	-	46	12	25	20	8	5
	88%	12%	-	79%	21%	43%	34%	14%	9%

Note : MLL = Minimum Levels of Learning

Table 5.14 shows the responses of teachers on the content covered during the training programme. Both the groups, High School (87 per cent) and Upper Primary teachers (88 per cent) agreed that the content of training covered the syllabus of the School. Only a small percentage of 13 of High School teachers and 12 of Upper Primary school teachers felt that the techniques of teaching were also dealt at the training programmes.

Both the High School (78 per cent) and Upper Primary School teachers (79 per cent) stated that the development and the changes taken place in the curriculum were taken care of during the training programme. 12 per cent of High School and 21 per cent of Upper Primary School said in the negative

while 10 per cent (HS) was silent on this question. 31 per cent of High School and 43 per cent of Upper Primary School teachers stated that the concept of minimum levels of learning was introduced. 43 per cent and 34 per cent of High School and Upper Primary School teachers respectively stated that environmental awareness was made the topics of discussion. A percentage of 19 per cent of High School and 14 per cent of Upper Primary School teachers stated that child-centred education was also included in the training and a small percentage of 7 of High school and 9 of Upper Primary School teachers said the training dwelt on the effective techniques of teaching also.

#### 5.15 : Methods of Teaching

	Methods of Teaching				Whether effective	
	Lecture	Demonstration	Lecture-cum-Demonstration	Activity based	Y	No
High School	36 53%	4 6%	13 19%	5 7%	28 41%	40 59%
Upper Primary School	28 48%	20 35%	10 17%	- -	48 83%	10 17%

Table 5.15 reveals that both the groups were rating Lecture method as the method used in the training programmes (53 per cent of High School and 48 per cent of Upper Primary School). Only 19 per cent of High School and 17 per cent of

Upper Primary School teachers said it was lecture-cum-demonstration and 35 per cent of Upper Primary teaching said it was also demonstration. 15 per cent of High School was silent on the methods adopted. On the effectiveness of the method, there was differences in responses. The High School teachers (59 per cent) found that the method was not effective while 83 per cent of the Upper Primary School groups said it was effective. This is so probably because the Upper Primary group rated a high percentage for the demonstration and lecture-cum-discussion methods.

#### 5.16 Overall Assessment of the Programme.

	To what extent expectation met		
	Great extent	Some extent	Not at all
High School	15 22%	46 68%	7 10%
Upper Primary School	20 34%	38 66%	- -

Table 5.16 reveals the different opinions of the respondents at the two stages. Most (68 per cent) of the High School teachers stated that their training expectations were met to some extent. Only 22 per cent said it was met to a great extent and 10 per cent said it was not at all met. The Upper Primary teachers (66 per cent) felt the training expectations were met to some extent and a slight percentage

of 34 felt the programme expectations were met to a great extent.

### **Suggestions to Make the Training more Relevant**

The suggestions given by both the groups for improvement the training programme were (i) Audio-Visual aid be provided in the training programmes; (ii) Demonstration be held for the teachers; (iii) the training programme should be more frequent and duration should be lengthened; (iv) SCERT personnel be engaged for the programme; (v) the High School teachers felt that experiment should be done in a laboratory during the training programme; (vi) resource persons, if drawn from outside SCERT should be well-trained.

A comparison of responses was also done on the basis of the location of schools, gender, their qualifications and experience to find out if there is difference of responses of teachers towards in-service training in Science and Mathematics conducted by the SCERT.

### Rural-Urban Comparison of Responses

For purpose of comparison, the investigator selected the High School group for rural-urban comparison, as this group was found represented by both urban and rural school teachers. The tabulated data is presented below.

### 5.17 - Rural/Urban Comparison

	Adequacy of training duration		Statement of training objectives		Achievement			Resource persons		Whether trained		Training Methods					Whether effective		Content			Achievement of training programme		
	Y	N	Y	N	GE	SE	NA	CT	SCERT	Y	N	L	D	L-D	Activity based	Y	N	Syllabus	Method of teaching	D./Exp.	GE	SE	NA	
Rural 46	6 (13)	39 (85)	34 (74)	9 (19)	9 (19)	32 (70)	5 (11)	30 65	16 (35)	20 (43)	26 (57)	26 (56)	4 (9)	13 (28)	3 (7)	20 (43)	26 (57)	40 (87)	6 (13)	- -	10 (22)	30 (65)	6 (13)	
Urban 22	5 (23)	17 (77)	9 (41)	13 (59)	5 (23)	17 (77)	- -	12 55	10 (45)	10 (45)	12 (55)	11 (50)	- -	6 (27)	5 (23)	10 (45)	12 (55)	19 (86)	3 (14)	- -	5 (23)	14 (64)	3 (13)	

*Note: Figures in parentheses denote percentage.*

GE = Great extent; SE = Some extent; NA = Not at all;  
 CT = College Teachers; Y = Yes; N = No; L = Lecture;  
 D = Demonstration; L-D = Lecture-cum-Demonstration;  
 Exp = Experiment.

Table 5.17 shows that there is not much difference or responses between the rural and urban school teachers towards the programme. Both the groups agreed on the inadequacy of the training programme though the percentage is higher in case of urban school teachers (13 per cent and 23 per cent respectively). But there is a slight difference of responses on the statement of training objectives. 71 per cent of the rural teachers stated that the training objectives were well-stated whereas 59 per cent of the urban teachers felt it was not clearly stated but both the groups agreed (70 per cent and 77 per cent of rural and urban teachers respectively)

that the objectives were achieved only to some extent. Both the rural (65 per cent) and urban (55 per cent) groups rated that the resource persons were mostly from college and both the groups (rural 57 per cent and urban per cent) said that the resource persons were not trained. On the content of the training course, coverage of the syllabus was mainly the content rated by 87 per cent (rural) and 86 per cent (urban). On the methods used during the training both the groups felt that the training method was mainly lecture. Only a small percentage of 28 (rural) and 27 (urban) felt that lecture-cum-demonstration method was also employed during the training but majority, 57 per cent (rural) and 55 per cent (urban) felt that the training methods used were not effective. The overall assessment of most of rural (65 per cent) and urban (64 per cent) teachers was that their expectations from the training programme was met only to some extent. Only a minority of 22 per cent and 23 per cent of rural and urban groups respectively felt that the training expectations were met to a great extent.

#### A Comparison of Responses by Experience of Teachers

The investigator selected the High School group again for comparison of responses of teachers by experience. The experience of teachers was classified into two groups (i) those with 5 years experience and above and (ii) those with

experience of below 5 years. The tabulated data is presented below.

### 5.18 - A Comparison of Responses by Experience of Teachers

	Adequacy of training duration		Statement of training objectives		Achievements of objectives			Resource persons		Whether trained		Training Methods				Whether effective		Content			Achievement of training programme		
	Y	N	Y	N	GE	SE	NA	CT	SCERT	Y	N	L	D	L-D	Activity based	Y	N	Syllabus	Techniques of teaching	D./Exp.	GE	SE	NA
Five Years and above 34	6 (18)	28 (82)	23 (68)	11 (32)	10 (29)	18 (52)	6 (18)	27 (79)	-	15 (44)	19 (66)	20 (59)	4 (12)	10 (29)	-	14 (41)	20 (59)	29 (85)	5 (15)	-	10 (29)	24 (71)	-
Below Five Years 34	10 (29)	24 (71)	29 (85)	15 (15)	6 (18)	28 (82)	-	26 (76)	-	20 (59)	14 (41)	16 (47)	7 (21)	3 (9)	8 (23)	18 (53)	16 (47)	8 (23)	26 (76)	-	8 (24)	26 (76)	-

*Note: Figures in parentheses denote percentage.*

GE = Great extent; SE = Some extent; NA = Not at all;  
 CT = College Teachers; Y = Yes; N = No; L = Lecture;  
 D = Demonstration; L-D = Lecture-cum-Demonstration;  
 Exp = Experiment.

Regarding adequacy of the training the responses is slightly different. The teachers with more experience rated as high as 82 per cent that training duration was inadequate. On the statement of objectives, 68 per cent of teachers with more experience felt that the objectives of the programme was well stated and 85 per cent of teachers with less experience felt that the programme objectives were well stated.

Regarding achievement of objectives both the groups (79 per cent and 76 per cent of teachers with more or less experience respectively) agreed that the training objectives were achieved to some extent only. On the employment of resource persons, the teachers with more experience (79 per cent) and teachers with less experience (76 per cent) agreed that the college teachers were employed for this programme. Regarding the competence of resource person the groups differed in their responses. The teacher with more experience (66 per cent) felt the resource persons were not effective whereas 59 per cent of teachers with less experience felt the resource persons were competent. On the training methods both the group felt the programme was rather theoretical as it involved more of lecture method but there was difference of percentages between the two groups - the teachers with more experience (59 per cent of them) said the training was dominated by lecture while lesser percentage (47 per cent) of the teachers with less experience said it was lecture but also activity-based (23 per cent). The two groups also differed in respect of the content of the training. 85 per cent of the teachers with more experience stated that the content of the training was based on the school syllabus while only 23 per cent of the teachers with less experience said it was on syllabus. 76 per cent of them felt it was mostly on techniques of teaching. Both the groups agreed that

their expectations were met to some extent. Only a small percentage of 29 per cent (teachers with more experience) and 24 per cent (teachers with less experience) said that their training expectations were met to a great extent.

### Comparison of Responses by Gender

Since only the Upper Primary group had an adequate representation of male and female teachers, the analysis on gender based comparison is restricted to teachers of this stage alone.

#### 5.19 - A Comparison of Responses by Gender

	Adequacy of training duration		Statement of training objectives		Achievements of objectives			Resource persons		Whether effective		Training Methods					Whether effective		Content			Achievement of training programme		
	Y	N	Y	N	GE	SE	NA	CT	SCERT	Y	N	L	D	L-D	Activity based	Y	N	Syllabus	Techniques of teaching	D./Exp.	GE	SE	NA	
Males 27	7 (26)	20 (74)	26 (96)	1 (4)	17 (63)	10 (37)	-	4 (15)	23 (85)	23 (85)	4 (15)	20 (74)	-	7 (26)	-	23 (85)	4 (15)	20 (74)	3 (11)	4 (15)	9 (34)	14 (54)	3 (12)	
Fe- males 31	6 (19)	25 (81)	27 (87)	4 (13)	12 (39)	19 (61)	-	6 (20)	25 (80)	25 (80)	6 (20)	14 (45)	12 (39)	5 (16)	-	25 (80)	6 (20)	31 (100)	-	-	11 (36)	19 (61)	1 (3)	

*Note: Figures in parentheses denote percentage.*

GE = Great extent; SE = Some extent; NA = Not at all;  
 CT = College Teachers; Y = Yes; N = No; L = Lecture;  
 D = Demonstration; L-D = Lecture-cum-Demonstration;  
 Exp = Experiment.

Table 5.19 above shows that both male and female respondents felt that the duration of training was inadequate, but the percentage is high in females (81 per cent) than in the males (77 per cent). On the objective of training, the male (100 per cent) felt that the training objectives were spelt out and were achieved to a great extent (62 per cent) whereas the female (61 per cent) said it was achieved only to some extent. The male (88 per cent) and female (80 per cent) counterparts revealed that the programmes were managed by SCERT personnel and expressed confidence on the resourcefulness of the resource person. Regarding the methods of teaching used during the training, a high percentage of male and female groups (76 per cent and 45 per cent) respectively said that it was Lecture method, a smaller percentage of them, mentioned that lecture-cum-demonstration was also used (the percentage is high with the female). Both the groups - 88 per cent and 81 per cent of male and female respectively found the methods used were effective. Both the groups felt that the content of the training was mostly school syllabus based. The overall assessment of the training programme was that their expectations were met only to some extent, and a small section of them (34 per cent and 36 per cent of male and female respectively) felt that their training expectations were met to a great extent.

### A Comparison of Responses by Qualification

The qualification of Upper Primary teachers ranges from matriculates to post-graduate degree. This group was thus taken for analysis of responses and teachers were divided into two groups : i) Graduates and Post-graduates, and ii) Matriculates and PUC.

#### 5.20 - A Comparison of Responses by Qualification

	Adequacy of training duration		Objectives clearly stated		Achievements of the training objectives			Resource persons		Whether trained		Training Methods				Whether effective		Content		Achievement of training programme		
	Y	N	Y	N	GE	SE	NA	CT	SCERT	Y	N	L	D	L-D	Activity based	Y	N	Syllabus	Techniques of teaching	GE	SE	NA
Q1 23	7 (30)	16 (70)	15 (65)	8 (35)	8 (35)	15 (65)	-	6 (26)	17 (74)	17 (74)	6 (26)	12 (87)	6 (26)	2 (9)	3 (13)	20 (87)	3 (13)	18 (78)	5 (22)	16 (70)	17 (30)	-
Q2 35	5 (14)	30 (86)	27 (79)	8 (23)	5 (14)	30 (86)	-	1 (3)	34 (97)	31 (89)	4 (11)	22 (63)	2 (6)	10 (28)	1 (3)	28 (80)	7 (20)	27 (77)	8 (23)	12 (34)	23 (76)	-

Note: 1. Figures in parentheses denote percentage.  
2. Q1 - Graduates & Post-graduates,  
Q2 - Matriculates & PUC.

GE = Great extent; SE = Some extent; NA = Not at all;  
CT = College Teachers; Y = Yes; N = No; L = Lecture;  
D = Demonstration; L-D = Lecture-cum-Demonstration;  
Exp = Experiment.

Table 5.20 shows that there is not much difference in responses between the two groups. Both the groups — the well-qualified group (70 per cent) and the less-qualified groups (86 per cent) felt the same that the training duration

was inadequate. On the training objectives the two groups revealed that the objectives have been clearly stated and were achieved to some extent. Here the more qualified group (35 per cent) found the objectives were achieved to a great extent. The resource persons, as revealed by both the groups (74 per cent and 97 per cent) of well-qualified and less-qualified respectively were drawn from SCERT and found them trained and effective by 74 per cent of well-qualified and 89 per cent of less-qualified. Both the groups found the content of the training syllabus-based. On the methods of training, both the groups revealed that mostly the lecture method was used by the resource persons. But 30 per cent of well-qualified teachers and 28 per cent of less qualified teachers said that lecture-cum-demonstration was used. The extent expectations were met from the training was only to some extent (74 per cent by well-qualified teachers and 76 per cent by less qualified teachers) a small percentage of 26 and 34 of more-qualified and less qualified teachers respectively felt the training programme expectations were met to a great extent.

To conclude, if we analyse the combined responses of High Schools and Upper Primary Groups, a rural-urban comparison, a comparison of responses by experience of teachers, a male-female comparison and a comparison of

responses by qualification, we found that there is not much difference of opinion between the groups.

The general information of teachers show that teachers who were beneficiaries of the programme were from Government and non-Government schools. More teacher respondents were from rural areas. Regarding qualification, the analysis shows that teachers at the high school were more qualified but at the Upper Primary level the largest percentage (41 per cent) were teachers with P.U. qualification and only 31 per cent graduates. Experience-wise both the groups had about 50 per cent per cent of teachers with 5 years experience and above and below 5 years experience. More male teacher respondents were found at High School level whereas more female teacher respondents at the Upper Primary level.

Regarding adequacy of training duration, all the group agreed on the inadequacy of the training programme. They found it too short. On the statement of training objectives, the groups were unanimous that training objectives were clearly stated but differed on the achievement of training objectives. The High School teachers (71 per cent) said the achievement was only to some extent whereas 46.5 per cent of Upper Primary School teachers said it was to a great extent. Male respondents (62 per cent) found the achievement was to a great extent while their female counterpart (61 per cent) found it only to some extent. Other groups found the

achievement of training objectives were to some extent but differed in percentage.

On the employment of Resource persons there was difference of opinion. The High School teachers (91 per cent) felt the resource persons were college teachers whereas Upper Primary (81 per cent) felt they were mostly from SCERT. The teachers whether rural or urban, teacher with more experience or less experience because they were drawn from High School group, they confirmed the same thing and found the resource person not effective or competent. On the other hand, the teachers whether male or female, more qualified or less qualified they confirmed that the resource persons were drawn from SCERT and expressed confidence in their competency.

Content-wise all the groups agreed that the content of the training was syllabus-based. Only a small percentage of the group said it was also on techniques of teaching. On the methods of teachings all confirmed that the training method used was mostly lecture. Only a small percentage said it was also lecture-cum-demonstration and activity based.

The overall assessment of the groups was that their expectation were met only to some extent. But respondents of the Upper Primary groups found their expectations met to a great extent.

#### **5.4:2. Training-cum-Workshop on Socially Useful Productive Work (SUPW)**

This programme was the second programme of the SCERT that was taken up for follow study by the investigator. SUPW is a new curricular area in the present school curriculum and forms an integral part at all stages of school education. Soon after it was introduced in the schools, it was decided to run an orientation programme on the subject. It was meant to acquaint the teachers with the concept, meaning, objectives of the programme and its implementation in schools. Since the subject is an activity-based programme, it is important to develop appropriate skills and attitudes in teachers. The SCERT conducted training-cum-workshop sessions from 1992-93 onwards with the main objectives of acquainting the teachers with the concept and meaning and to develop basic skills in them. The number of teachers trained by SCERT from 1992-93 to 1995-96 was altogether 564 Upper Primary School (unpublished reports of SCERT).

The investigator planned an evaluative study on the effectiveness of training-cum-workshop sessions conducted by the SCERT by obtaining the reaction of the teachers who had attended the programme. A questionnaire was prepared to seek information on the knowledge of teachers about the subject and to know their reactions to the training programme. The first part of the questionnaire was on the personal data of teachers, in the second part was their knowledge about the

subject and the third part had questions on behavioural changes that occurred after the training programme.

Out of 564 trained teachers, 57 teachers from different districts were taken at random as sample for the study. The investigator administered the questionnaire personally to the teachers soon after they had completed the training. Their responses were scored, tabulated and analysed. The analysis of their responses are given below which may be grouped as A, B, C and D.

*Group A* - analyses the general information of teachers.

*Group B* - analyses their knowledge about the subject.

*Group C* - analyses the behavioural changes of teachers after the training programme.

*Group D* - analyses the implementation of SUPW in schools.

#### Group A

##### 5.21 : General Information of the Respondents

Upper Primary School	Sex		Qualification			Experience		Location	
	M	F	BA/B.Sc.	PUC	HSLC	5 Years & above	Below 5 years	Rural	Urban
57	22	35	9	29	19	37	20	53	4
%	89%	61%	16%	51%	53%	65%	35%	93%	7

Table 5,21 shows 39 per cent of the respondents were males and 61 per cent were females. Qualification-wise 51 per

cent of them were PUC passed and 33 per cent were matriculates and only 16 per cent were graduates. 65 per cent of them had worked 5 years and above and only 35 per cent were below 5 years. 93 per cent of the respondents were from rural schools and only 7 per cent were urban school teachers.

### Group B

#### 5.22 Knowledge About the Subject

Implementation of SUPW in Schools			Knowledge about the subject						Method used in the Training				
Y	N	How many classes			Meaning	Aim	Objective	Work Areas	Type of Programmes	Lecture	Activity Based	Both	
		Once	Twice	Adequate									
				Y	N								
54	3	30	27	32	25	56	56	56	56	52	12	45	-
95	5	53%	47%	56%	44%	98%	98%	98%	98%	91%	31%	79%	-

Table 5.22 shows that 95 per cent of respondents have implemented the subject in their schools. Only 5 per cent responded in the negative. About 53 per cent have their classes once a week and 47 per cent have their classes twice a week. 56 per cent of them felt the number of classes they have was adequate whereas 44 per cent felt the number of classes they have was not adequate for carrying out the SUPW

activities. Most of them (98 per cent) found that the training has helped them in understanding the meaning, aim, objective of SUPW and the types of programmes conducted in the school.

On the methods used in the training, a high percentage of the respondents (79 per cent) revealed that method used during the training programme was more activity. 91 per cent of the respondents found the training methods used very effective.

### Group C

#### 5.23 Skills Learnt during the Training

Skills learnt during the training	Did participation help in implementation of SUPW		If yes, to what extent ?			How did the Training help ?
	Y	N	GE	SE	NA	
1. Macrame work	56	1	56	1	-	1. Development of desirable attitude
2. Making flowers, toys, decorations						2. Learnt more skills
3. Orchid making	98%	2%	98%	2%		3. Knowledge to implement & use of locally available resources
4. Yoga						
5. Integration songs						

Table 5.23 shows that almost all the respondents learnt many skills at the workshop. Those skills mentioned by most (98 per cent) of the respondents were i) Macrame work; ii) Making flowers, toys, decorative articles; iii) Orchid making; iv) Leant about Yoga and v) Integration songs. The participation in these activities helped them (98 per cent) to a great extent in implementation of the programme (SUPW) in the schools. Most of them (98 per cent) revealed that the workshop helped them develop favourable attitude towards the subject. They also revealed that they acquired the knowledge about the subject and how to implement it in the school. They revealed that they learnt to make full use of waste materials and locally available resources. 98 per cent revealed that learnt more skills and were confident in conducting the programme in their schools.

To countercheck whether the respondents understood implementation of SUPW in the school after having attended the training programme their responses on the method of teaching SUPW, importance of SUPW and evaluation of the students' work and their problems of implementation were sought and the findings are presented below.

## Group D

### 5.24 Implementation of SUPW in Schools

Methods Used in Schools			SUPW help development of personality of the child		If yes, what areas ?		
Lecture	Activity Based	Any Other	Y	N	Under-stand- ing	Dev. of Attitude	Dev. of Skills
37	19	1	56	1	4	10	43
65%	33%	2%	98%	2%	7%	18%	75%

Table 5.24 shows that method used by the teachers in the school was lecture method (65 per cent) and only a small percentage (33 per cent) used activity-based method in implementing SUPW. They (98 per cent) also revealed that SUPW activities helped in the development of personality of the child. The areas that majority (75 per cent) thought most important is the development of skills followed by development of attitude.

### 5.25 Evaluation of SUPW in Schools

Evaluation of SUPW		If Yes, when			Techniques of evaluation				Marking System		
Do you evaluate SUPW	Y	N	At the end	At certain time	Throughout the course	Written	Oral	Observation	Record Card	Grade	Marks
	57	-	2	15	40	10	38	41	10	45	12
	100	-	3%	26%	70%	17%	66%	72%	17%	79%	21%

Note : Regarding techniques of evaluation, teachers used more than one technique. So the percentage shown is to find out the techniques most used by them.

Regarding evaluation of SUPW activities of the children, majority (70 per cent) of the respondents revealed that they evaluated throughout the course, 26 per cent during certain time and 4 per cent at the end of activity. The techniques used for evaluation were mostly observation (72 per cent) and oral questioning (66 per cent). 17 per cent of the respondents revealed that they kept a record card for evaluation SUPW activities and 17 per cent used written test as the techniques of evaluation. Majority (79 per cent) of them gave grade of evaluation and only 21 per cent said they still followed the marking system.

The general difficulties expressed by all the respondents in implementation of the subject were i) lack of resources; ii) inadequacy of SUPW classes; iii) lack of storing facilities; iv) lack of initiative on the part of teachers and lack of students interests. The majority of them expressed confidence of tackling the problems and came out with suggestions to solve the above problems for further improvement of the programme.

The analysis of the responses of teachers on their reactions to the training programme shows that the teachers have benefitted from the programme. They understood the concept meaning aim and objectives of SUPW and learnt many skills which gave them confidence to implement the programme in the school.

If we also analyse the responses of the teachers of what they practised in their schools shows that they have understood how to go about the programme in future. They also came out with suggestions for solving the problems which they faced in the actual implementation of the subject. This shows an encouraging signal to the SCERT personnel for future plan of action.

#### **5.4.3 Special Orientation Programme for Primary School Teachers (SOPT)**

The third programme taken up by the investigator for follow-up study was Special Orientation Programme for Primary School Teachers (SOPT) conducted by the SCERT. This is a centrally sponsored scheme implemented by the SCERT in the State for the primary school teachers. The main objectives of the scheme is to acquaint the teachers in the use of the Operation Blackboard materials which were distributed to the schools, to facilitate activity-based learning and to ensure adoption of the minimum levels of learning strategy to increase retention. This training (as mentioned earlier is classified as general training by the investigator since the training touched upon all subject areas in the school and also included the awareness programme of making a teacher competent to handle the children in the classroom.

The number of teachers covered under the training was 3416 (Brief Report on SOPT) out of which a random sample of

500 teachers was included in the study. They represented all districts of the state. A questionnaire was prepared and was given to the teachers after they attended the training programmes. The questionnaires returned were only 200 and they formed the actual sample. The questionnaire deals with the achievement of training objective, duration of the course, content relevance, topic to be deleted or increased the individual session given to the resource persons, the training methods, course material given to them and their suggestions to make the programme more effective.

The responses of teachers were scored, tabulated and analysed and the findings are as follows :

#### 5.26 Regarding the Training Objectives

To what extent the training objectives achieved				To what extent were your expectation met from the course				Duration of the course		
GE	SE	Partly	NA	GE	SE	Partly	NA	Ade-quate	Too long	Too short
32	156	12	-	120	70	10	-	50	~	150
16%	78%	6%	-	60%	35%	5%	-	25%	-	75%

Note : GE = Great extent; SE = Some extent; NA = Not at all.

Table 5.26 reveals that 78 per cent of the respondents expressed that the training objectives were achieved to some extent. Only 16 per cent said the training objectives were achieved to a great extent and 6 per cent said it was

achieved only partly. Regarding their expectation from the course majority of them (60 per cent) expressed that their expectations were met to a great extent and only 34 per cent felt it was met only to some extent. On the duration of the course, majority (75 per cent) felt the course was too short and only 25 per cent felt the duration was adequate.

### 5.27 Relevance of Content of the Training

Did you find the content relevant?		If No, what should be covered during the training?	What topic could be reduced ?	What topic could be added ?	Was the time for individual session adequate?		
Y	N				Y	N	If no, reason
188	12	-	40 Girls Edn.	All topics	150	50	Too short
94%	6%	-	20%	-	70%	25%	-

Table 5.27 shows the opinions of teachers on the relevance of content. Almost all teachers 94 per cent expressed that the content of training was very relevant as it covered all subject areas and the awareness programme about the use of operation blackboard materials. Only 6 per cent felt it was not so relevant. The topics were all relevant and only 20 per cent expressed that a topic on girl education could be deleted since there is already an equality of sexes in the society. But all topics on school-subject areas should be added was agreed by all respondents. This could be done with the increase of duration.

The individual sessions given by the resource persons to the teachers was found useful and adequate by a majority (75 per cent) of them. Only 25 per cent felt the session was too short.

### 5.28 Method Used during the Training

Method employed				Rating			Was Course material supplied adequate ?			
Lecture	Demonstration	Activity based	Lecture-cum-Demonstration	Very effective	Effective	Not effective	GE	SE	Partly	NA
186	146	146	186	130	70	-	-	-	180	24
93%	73%	73%	93%	65%	35%	-	-	-	60%	12%

Note : The teachers rated more than one method so the percentage shown is to find which method was rated high by them.

On the method used during the training the respondents felt that all the four methods, i.e. Lecture, Demonstration, Activity-based and Lecture-cum-Demonstration were employed during the training programme. 93 per cent of them felt it was mostly Lecture whereas 73 per cent of them felt it was Demonstration, 73 per cent Activity-Based and 93 per cent felt it was Lecture-cum-Demonstration. The method used was found very effective by 65 per cent and somewhat effective by 35 per cent of respondents. No one has expressed in the negative. Regarding the course material given 60 per cent respondents said that it was inadequate, while 12 per cent

reported that they did not receive the materials at all, 28 per cent of them were silent on this question.

The suggestions given by the participants for improving the effectiveness of the programme were i) to lengthen the duration and suggested to have one month's training programme; ii) to provide learning materials to teachers; iii) inspection of Operation Blackboard materials be done from SCERT; iv) more training every year and supply of art materials for the training; vi) TA/DA of the teachers participants be raised to meet the bare expenses of teachers.

#### **5.5. Assessment of the SCERT Programmes by the Field Officers**

The Inspectors of Schools and Deputy Inspectors of Schools are responsible for administration of Secondary and Upper Primary Schools respectively in Meghalaya. The Inspector of Schools is the principal education officer who is assisted by the Deputy Inspectors of Schools and Sub-Inspector of Schools. These officers are also responsible for deputing the teachers to the various training programmes conducted by the SCERT.

The Elementary Teacher Training Institutes look after the in-service training needs at the elementary stage. The principals and the teacher educators of these institutes are involved as resource persons in the various training programmes of the SCERT in the different subject areas.

The Headmasters and Headmistresses of the schools are also involved either in attending the programmes of the SCERT or in selecting the right teachers for the different courses.

The investigator felt it appropriate to seek the opinions of these educational officers who are actually in the field and are involved in implementing the various programmes and activities of SCERT. As the investigator could not meet personally all the concerned personnel, a questionnaire was prepared seeking information on the implementation of SCERT programmes in the past and also about their expectations in future. The questionnaires were mailed to all Inspectors(3) all Deputy Inspectors of Schools (15) and all the Principals of Elementary teacher training Institutes (10) in the State and to (35) Headmasters/Headmistresses in the State.

The responses were received from one Inspector of Schools, 8 Deputy Inspectors of Schools, 6 Principals of training institutes and 20 headmasters/headmistresses from all the districts of the State. Their responses were scored and tabulated separately and the findings are as follows :

#### 5.5.1. Inspecting Officers' Response

1) On the question what should be the role of the SCERT — most (66 per cent) of the respondents are agreed on the role of SCERT as the effective academic institution in

the State. They feel that it should provide academic assistance to the concerned people and institution in the field regarding the syllabus for its smooth implementation in the schools. Most of them (77 per cent) feel that its present role of giving in-service training to teachers and development of the new curriculum in the State is satisfactory. But some of them (33 per cent) expressed that close co-ordination has to be established between the SCERT and the MBOSE regarding the syllabi and courses of study in order to keep pace with the new curriculum.

2. *Activities suggested to fulfil its role* — The activities suggested by most (77 per cent) respondents were frequent orientation for the Inspecting staff should be conducted on the new developments of school education to enable them to keep pace with the developments taking place in the country. They also felt that a proper survey of the genuinity of schemes should be done by the Council. Some (44 per cent) also suggested that long-term in-service training should be conducted by the SCERT to cover all the different subject-areas.

3. *The Important Programmes undertaken by the SCERT in the Past Five-Years* — The programmes mentioned by all of them were :

i) In-service training (short-term) in different school subjects.

11) Publication of textbooks.

111) Conduct of Talent search at the end of Upper Primary and at the end of High School stage for Tribal students and for rural students.

1v) Coaching classes for tribal students in Science and Mathematics.

v) Incentive to teachers engaged in extra-classes/tutorial classes for HSCLC/SSLC students, massive orientation of primary school teachers in the new curriculum, SUPW programme, puppetry; special orientation programme for primary school teachers (SOPT) and the like

4. *The role in selecting and deputing teachers* — All of them agreed on the point that they all have the role in selecting the teachers to the programmes of the SCERT. The Inspectors of Schools are responsible in selecting the High School teachers and the Deputy Inspectors of Schools for Upper Primary and Primary Schools.

These teachers were deputed to the In-service Training Programme conducted by SCERT in various streams from time to time.

The procedure usually adopted by them was to select the teachers from different school and depute them for training. Inspection and supervision of schools was also done to the possible extent.

5. *Their visit to the schools where teachers with such training work* — They all agreed that they visited those schools to inspect the work of teachers who have received such training. Most (88 per cent) of them felt that the trainings conducted by SCERT have helped a lot to the teachers and there is improvement in their work. But some of them (33 per cent) felt that the teachers' trainings in some cases were not satisfactory as the resource persons in these programmes were drawn from the senior teachers who were not quite conversant with the subject.

6. *The programmes to be conducted more intensively* — Most of them (55 per cent) felt that In-service trainings should be conducted intensively in all the subject areas as most of the teachers are not so much acquainted with the new curriculum. But most of them (77 per cent) stressed that long-term in-service in Science and Mathematics should be conducted more frequently as most of the teachers especially from the rural areas are not Science educated teachers but due to lack of Science and Mathematics teachers they have to teacher these subjects.

Field survey should also be conducted to have personal contacts with the School authorities particularly in rural areas.

7. *Special programme to be taken by SCERT in new few years* — Most of them (55 per cent) were not able to pin-

point specific programmes but suggested that SCERT should take up the scheme of work to cope with the development of educational trend. They were also stressing on demonstration and practical teaching at the training.

8. *Suggestions for improvements* — Regarding suggestions for improvement most (88 per cent) of them expressed satisfaction at the work done by SCERT and were confident that SCERT has contributed towards improvement of school education. They all felt that it depends much on the teachers to implement what they have received during training. But some (22 per cent) were in favour of enhancement of various existing programmes to the possible extent.

#### 5.5.2. Responses of Principals of Elementary Teacher Training Institute

1) *Role of SCERT in the Development of School Education* — All the Principals agreed that SCERT's role is

1) to impart training to school teachers at different levels;

11) training of curriculum for schools and teachers' training institutes;

111) development of instructional materials for schools and teachers' training institutes;

1v) involvement in Selection Board for recruiting teachers and the like.

Most of them (66 per cent) felt that the role of SCERT could be furthered if there is strong co-operation between SCERT and the State Education Department. The Department should take disciplinary action for non-cooperation of any teacher in the SCERT programme. SCERT should also develop a close relationship with the school teachers and to provide more academic assistance especially in educational methods under the scheme of operation Blackboard. Some of them (33 per cent) expressed the desirability of the preparation of the magazine by SCERT which deals with current events, scientific and educational development in the State, the country and the world.

2. Activities to be Undertaken by SCERT - Most of them felt that SCERT should take up the following :

i) learner-centred approach education should be stressed. Activity-based programme be given importance in the SCERT training programme;

ii) update the syllabus of schools and TTI from time to time;

iii) preparation of textbooks for T.T.I.;

iv) conduct in-service training programmes;

v) supply of science apparatus to the schools;

vi) inspections/visits to the T.T.I. by the SCERT personnel for improvement of physical aspects and academic aspects;

vii) special programme in the rural and backward areas of the State for promotion of literacy.

3. *Programmes undertaken by SCERT in the past five-years* — Most of them (83 per cent) expressed that SCERT has conducted many programmes during the past five years. Some of those mentioned are the following :

- Training of Resource Persons in connection with the training of primary school teachers in the State talent search.

- Programme of Mass Orientation of Primary School teacher (PMOST).

- Preparation of school syllabus.

- Preparation of Teachers-Training syllabus.

- Programme on Work experience

- Training programmes in Social Studies.

4. *Selection and deputation of teachers* — All of them, expressed that they have no role in selection and deputing of teachers.

5. *Visit to schools where teachers with such training work* - All of them answered in the negative.

6. *Programmes to be conducted by SCERT more intensively* - Most of them (83 per cent) felt that

- 1) Intensive teachers' training for enlightenment of new curriculum should be conducted and

- ii) update the syllabus from time to time.

111) Some (38 per cent) have also stressed on the need of construction of standardised test like Intelligence Test and for initial stage these could be used for pupil in primary and upper primary schools. Value Education and Environmental education were also stressed by some respondents (33 per cent).

7. *Special programmes to be undertaken in the next few years* - 1) Intensive training for teacher-educators as well as heads of the elementary education training institutes and all the Deputy Inspectors and Sub-Inspectors on the implementation of the new curriculum. 2) Short in-service training for all school teachers upto 10+2 level. 3) SCERT should publish text-books in all subjects included in the curriculum of the Teachers' Training Institutes. 4) Conduct the examination of the Teachers' Training Institutes.

8. *Suggestions for improving the programme of SCERT* - Most of the respondents (66 per cent) felt that for improvement of the programmes of SCERT it is necessary to have concerted efforts of all concerned in the Education Department. The Department should co-operate with SCERT in its implementation of programme. There should also be a close coordination between the field-staff and the teachers at large.

### 5.5.3 Responses of the Headmasters/Headmistresses

1) *Role of SCERT* - Most of the heads (60 per cent) of high schools were of the opinions that the SCERT no doubt played a very important role in Education Department. It provides the academic support in improving the quality of school education in the State. They all feel that Education Department should draw upon the expertise of the SCERT in formulating and implementing policies and programmes in the areas of School and Teacher Education. They also feel that SCERT could continue to serve the State by helping to work for quality Education by helping to update the text-books, update the teachers through the in-service training programmes and it could see to the implementation of the syllabus in the State in a very effective manner and helping the MBOSE to be more efficient in its functioning.

2) *Activities suggested to undertake to fulfil its role* - Most of the respondents (55 per cent) felt that SCERT should take up the following :

i) Development of instructional materials could be taken up in the light of the new curriculum.

ii) Organise pre-service and in-service training.

iii) Conduct and promote research activities.

iv) To disseminate improved techniques of teaching and practices through the research findings.

v) To closely monitor and inspect the various educational institutions of the State in close collaboration with the Inspectorate.

vi) To have a close co-operation with the MBOSE for preparing the comprehensive Question Bank.

vii) To train the personnel in Computer Education and cultural activities, and

viii) To act as clearing house for ideas and information on all matters relating to School Education.

Some (40 per cent) were of the view that examination of Secondary School Leaving Certificate (SSLC) scripts should be done by SCERT.

3) *Programmes undertaken by the SCERT in the past five years* - All the respondents were of the opinion that many programmes were conducted by SCERT. These were some of them :

1) In-service training of teachers for different subject areas.

ii) Training for Resource Persons in Science and Mathematics.

iii) Preparation of curriculum and textbooks.

iv) Evening coaching class in Science and Mathematics.

v) Tutorial classes for the tribal SSLC and HSLC candidates.

vi) Mass Orientation of primary teachers in the use of the curriculum.

vii) Special orientation programme for primary school teachers (SOPT).

4) *Their role in selecting and deputing teachers* - All the heads of institutions were of the opinion that they played a role by deputing the subject teachers to the training conducted by SCERT in the State. All of them agreed that they also selected teachers as resource persons for running the coaching class. Selection of the resource persons was one on the seniority and efficiency.

5) *Visit the school where teachers with such training work* - All the heads of institution stated that they had evaluated only the works of the teachers in their own schools. Most of them (80 per cent) were unanimous that training has indeed helped the teachers in improving their methods and approach in teaching. Teachers become more self-confident and efficient. They become more competent to teach the subjects. But some heads (20 per cent) expressed their views that in some cases no appreciable improvement has been noticed in the performance of the teachers after receiving the training.

6. *Programme to be conducted more intensively* - All of the respondents stressed on the important of in-service training to teachers. This should be conducted more intensively at all levels of school education and the duration should be of a longer period. Some (45 per cent)

have expressed on the need for programmes for updating the text-books in the school in the light of the new curriculum.

7) *Special programme to be considered in the next few years* - All the respondents gave their views that in-service training programmes should form the regular features of the SCERT activities. Some of them (45 per cent) also felt that supervision and inspection be taken by SCERT so as to have the first hand information about the standard of teaching prevailing in the school. Monitoring of performance of primary school teachers should be done. Some of them (40 per cent) are of the opinion that SCERT should organise seminars for teachers of different levels on problems and difficulties in teaching. Teachers' participation must be made compulsory to bring about attitudinal change in them.

8) *Suggestion for improving the programmes* - Most of the respondents (55 per cent) were silent on the suggestions for improvement of the programmes of SCERT but some of the respondents (40 per cent) suggested that some sort of award be given to the resource persons who are really devoted and dedicated. Some (35 per cent) also felt that existing programmes of the SCERT should be strengthened and new programme be identified in collaboration with the NCERT.

### **5.6:0. Responses of Academic Officers of SCERT**

Having received the opinions of the people in the field about the working of the SCERT, the investigator felt that a picture of the working of the institution, will be complete only if the people who actually organise the programmes in the SCERT are also taken into consideration. Thus, the academic officers of SCERT were interviewed personally by the investigator to find out the types of programmes organised by them (SCERT) and the problems faced in the implementation of these programmes.

At present there are altogether 21 academic officers in SCERT but only 15 of them were in office at the time when the investigator administered the interview schedule. Their responses were recorded and interpreted. The interpretation are given below.

#### *The Types of Programmes/Activities*

The programmes surveyed by the investigator from the records in office were confirmed during the interview with the academic officers. These programmes and activities were grouped into research activities, curriculum development and trainings and extension. The programmes also cover the extension services of SCERT through the use of educational technology and guidance services. The trainings cover the different subject areas of school curriculum. The duration of

the programmes differs from programme to programme. There are programme with 15 days duration like the Crash Programme - an Orientative Programme for Upper Primary teachers. But some programmes like In-service, training in Science and Mathematics, Training in history, are of 10 days duration while the rest are of 7 days like the SOPT programme and 5 days duration like that of SUPW training-cum-workshop.

The programmes were meant mostly for Secondary, Upper Primary and Primary teachers. But there were programmes for the Teacher-educators and the inspecting staff conducted by SCERT in different aspects of education. The venues of the training programmes were mostly the school buildings selected by the SCERT personnel in different sub-divisional headquarters or the teacher training centres located in the different districts of the State.

The training programmes were conducted regularly by the academic officers almost quarterly but it also depended on the types of programmes. Programmes like the mass orientation of primary teachers was conducted once a year. Seminars, workshops were also conducted once a year.

#### *Planning of Programme*

The planning of programme was generally done by the academic officers in consultation with the district officers. But some academic officers (46 per cent) were stated that it

depends on the types of programme they conduct. There were programmes like the workshop on inspection and supervision where the district officers were personally involved, which the academic officer had to plan on his own.

There was no criteria for selection of teachers to the programme but in these training programmes which were meant for secondary teachers, only secondary teachers were selected. All academic officers stressed that deputation was done by the District officers but request was usually made by the SCERT personnel to depute those teachers who have not received any training earlier.

#### *Resource Persons*

All the officers were of the opinions that resource persons were drawn from SCERT for most of the programmes. But there were programmes which demanded expertise not available with the SCERT, the Resource persons were drawn from any of these bodies — NCERT, University, CIET, College teachers, Teacher educators and the experts in their respective fields. But there were programmes where school teachers, who have been earlier trained by the SCERT, were made the resource persons.

There were types of programmes where resource persons were given prior trainings. But in case of those programmes

where resource persons were drawn from the experts, no orientation was necessary.

#### *Preparation of Training Materials*

There were differences in the responses regarding preparation of training materials. Some officers (45 per cent) were of the opinion that the training materials were prepared before the training programmes but some officers (53 per cent) were of the view that no training materials were prepared. The school curriculum formed the main subject of discussion during the training programme. In programmes involving experts, working papers were prepared by the Resource persons in advance.

#### *Teaching Aid/Audio Visual Aid*

Most (66 per cent) of the academic officers expressed that they used teaching/audio visual aids to the possible extent. Overhead projector, transparencies, audio-visual aids and low/no cost teaching aids were often used during the training programmes.

The participants were given a certificate of participation in the programme at the end of the course. But this is mostly for school teachers programme.

### *Evaluation of the Programme*

The evaluation of any programme conducted by the SCERT personnel forms part of the training schedule itself. Feedback of participants was sought in order to analyse them for future guidance and to improve on such information pertaining to the smooth conduct and successful implementation of the programme.

Evaluation of the programme was done through questionnaire or interview schedule prepared for the purpose.

All the respondents stated that there was no provision for follow up service or support of participants and their activities in the schools. The only service or support usually given to them was in the form of discussion with the teachers. This was also done in an unorganised manner, for example giving guidance through personal contact and interaction when they come to office.

### *Achievement of the Programme*

Most (80 per cent) of the respondents who conducted the training programmes felt that the programmes had been successfully implemented. The teachers have been trained in different subject-areas and they have started carrying out the activities in their classroom. Through the programmes, they have participated, interacted with the resource persons

and their colleagues. This improved their confidence and knowledge of the content and the methods of teaching.

*Problems faced by the Academic Officers*

The analysis of the interview held with the Academic officers revealed that the following problems and constraints were faced by them in the effective implementation of policies and programmes of the SCERT.

1) The SCERT is at present functioning like a branch of the Directorate of Public Instruction. As a matter of procedure all matters have to be routed through the office of the DPI whose staff are not trained to scrutinise the worthiness of the programme proposals of the SCERT. As a result, sometimes good programme proposals are dropped for lack of understanding about their relevance.

2) The lengthy process of getting the approval of the proposals of programmes sometimes affect the time bound programmes management system of the SCERT.

3) Lack of good infrastructure at the Council affects the smooth working of the SCERT. There is no building to conduct the programmes on a regular basis. There is no provision of lecture halls and proper accommodation for teachers coming from outside. Very often temporary arrangement are made in this regard and this affects the efficacy of the programmes.

4) All the Units in the SCERT are manned by officers of the same rank. In the absence of middle level positions, there is no mechanism to effectively coordinate the officer's work in the Council. Duplication and overlapping of work sometimes occurs due to improper coordination of the work plans of different units.

5) The SCERT library is very small. There is scarcity of relevant books and journals for reference. Moreover, there is no collection of important documents like Research abstracts and survey reports.

6) All officers unanimously expressed that there is no provision for their further training to update knowledge in their respective fields in order to cope with the ongoing and emerging educational developments.

7) The effective implementation of various programmes is also normally affected by poor attendance of teachers in these programmes. This is due to the reluctance of the schools to send them for the SCERT programmes during academic session because of shortage of teachers in schools. During holidays and vacations the teachers are not easily available.

8) Financial constraints greatly affect the SCERT in the effective implementation of its different programmes.

9) Sometimes a problem crops up because of the deputation of some teachers to the various programmes.

10) Shortage of academic staff handicapped the efficient working of the SCERT.

11) They also expressed concern at the failure of the State Government to create avenues of promotion to the existing academic officers in the SCERT which affect their motivation and morale.

#### *Suggestions*

1) All officers agreed that there is need for granting autonomy to SCERT for effective implementation of the programme of SCERT.

2) Good infrastructure should be provided at the earliest possible. The SCERT should have a building of its own with laboratory, lecture hall and accommodation for the teachers.

3) Better library facilities should be provided with provision for documentation and reference work.

4) Middle level officer posts be created to effectively help to coordinate and monitor the programmes and to provide mobility to the academic officers employed at present.

5) The Academic officers in the Council should receive opportunities for their further education and training in different aspects of education for effective implementation of the programmes.

6) Administrative problems like provision of vehicles and other facilities be provided to facilitate the smooth working of the SCERT.

**Chapter VI**

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**DISCUSSION OF FINDINGS**

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## 6.1 Introduction

The SCERT, Meghalaya was set up on October 4th, 1976 when the Officer-on-Special Duty assumed charge. He also took charge as the Head of Department of Planning, Statistics and Research.

The SCERT has the following broad functions to perform:

1. Research and Development.
2. Training and Extension.
3. Production and dissemination of curriculum materials.

If we look at the actual development of SCERT, it shows that the body has grown into a strong healthy academic institution in a span of twenty years. The Council has expanded in size both vertically and horizontally. From one department, i.e. Planning, Statistics and Research when the Director first assumed office, it has multiplied to as many as eleven departments at present. These are Education, History, Science, Mathematics, Statistics, Educational and Vocational Guidance, English, Planning, Educational Technology Cell, Evaluation and Translation. From a single person heading the organization with only a handful of staff, it has grown to in size with as many as 30 academic officers, one Secretary and 42 supporting staff. The Council has also expanded vertically. In the beginning, the Council was headed by an OSD in the rank of the Deputy Director of Public

Instruction which was upgraded to the rank of Director (SCERT). At present, the Director, SCERT is equivalent to the Additional Director of Public Instruction and is assisted by an Additional Director (SCERT).

In terms of financial provisions made it can be seen from a paltry allocation of Rs.2,00,000 (Rupees two lakhs) made in 1976-77, the expenditure has increased to Rs.4,20,000 (Rupees four lakhs twenty thousand) during 1978-79 (more than double in two years). The amount has increased to Rs.46,66,000 (Rupees forty six lakhs sixty six thousand) in 1995-96, and increase of twenty three fold in a span of nineteen years.

The SCERT has also grown in terms of programmes and activities. With the addition of departments/units in the SCERT, different programmes were conducted ranging from seminars, conferences, workshops, refresher courses, in-service trainings, extension services, educational services, curriculum development, development of instructional materials, supplementary reading materials, surveys and researches in the different fields of education covering different stages of education. There are units/departments which deal with the method of teaching in the schools and units/departments which deal with content of the teaching of various subject areas in the schools. Besides, there are units that see to the students' improvement programme like

the State Talent Search, coaching classes and the like. Whereas other departments/units see to the educational and vocational needs of the learners. The Educational Technology Cell run radio lessons, develop improved teaching aids for classroom use and undertake programmes for improvement of quality of school education.

The developmental trend may also be noted by analysing the expenditure pattern on programmes and activities of the organisation over a period of time. Thus a sum of Rs.56,650 (Rupees fifty six thousand six hundred and fifty) has been shown as expenditure for the programmes of SCERT in 1976-77. This amount showed an increase to Rs.1,10,000 during 1979-80 and had increased to Rs.24,04,000 (Rupees twenty four lakhs four thousand) during 1995-96. This shows an enormous increase of forty two fold in a span of nineteen years.

The SCERT, since its establishment is handicapped by the absence of a good infrastructure. The office building was housed in a dilapidated school building at Mawkhar with no facilities at all. The SCERT has no building of its own even after a span of twenty years of its existence. There is no lecture hall, no proper accommodation for resource persons and teacher participants, no laboratories at the SCERT and no basic equipments. There is a small library with no reference section and documentation. No basic amenities for the personnel of SCERT is provided. The conduct of programmes

was carried out bearing all these constraints. This condition still remains till date. An office building is being built and much requires to be done.

The SCERT has had a good linkage with other branches in Education Department and with the District Officers and the people in the field but lack of control of SCERT over the schools and the teachers sometimes affect the smooth conduct of the programmes of SCERT. In relation to the school board (MBOSE), the SCERT provides necessary expertise in the field of curriculum development and development of instructional materials. Again there is no coordination between SCERT and MBOSE and as such the effective curriculum implementation was affected especially in the first two years of its implementation.

The SCERT serves as a liaison between the State Department of Education and the NCERT and the Central Ministry of Education in all academic matters. The SCERT also serves as a link between school education and university education. It has a direct link with institutions at the national and regional level like NEHU, CIET, CIEFL, RCE, NEC and the like in all matters concerning academics. In dealing with these institutions, the SCERT academic officers have to deal directly with senior officers like the Professors, Readers, and even Directors since there were no senior officers except at the rank of Director, SCERT.

In terms of personnel employed in the departments, the SCERT has grown up to as many as 28 academic officers (excluding Director and additional Director, SCERT) all of whom are at the same rank. There is no arrangement like NCERT or other SCERTs in the country for creation of senior posts or for provision of higher pay scale for experienced officers in the field. The academic officers who joined when SCERT started continue to stagnate with no promotional avenues. The organisation expanded only horizontally with the creation of more departments taking the total to eleven but with no proper plan of departments and personnel. There is no balanced arrangement of personnel. There are units/departments with as many as six lecturers as Education Unit but there are departments like History, Statistics and mathematics which still remain the number as one with no expansion. Besides, the departments like research, curriculum development and publication and in-service training are not independent entities. The activities and programmes in these areas were taken by different units of the SCERT with no uniformity in allocation of activities. So there is a need of proper bifurcation of units in SCERT if it has to function effectively to see that all departments like Teacher Education and Extension Services departments are included in the said plan of Units.

## 6.2 Programme and Activities

Programme-wise if we analyse the performance of the SCERT it may be seen that the organisation has in many ways fulfilled the objective for which it was established. The institution has been contributing qualitatively towards the improvement of school education in the state through the following activities.

The SCERT has conducted thirty seven seminars and conferences for discussion of the problems of education in the state. It has also conducted fourteen surveys and studies for investigating the problems of education in the state. These studies range from studies on school education, curriculum studies, studies on educational and vocational needs of the student, classroom improvement studies and studies on the performance of students in the various examinations.

These studies have made the system of education aware of the various problems faced by the teachers, the students and the system in general. For example, a survey was conducted by SCERT to find out the feasibility of introducing Project, Primary Education Curriculum Renewal (PECR) for development of curriculum at the primary stage. The survey provided ready information and the revised curriculum and instructional materials developed by SCERT were tested and experimented in the project schools introduced under the

project. The curriculum was widely infused in the state with the announcement of the Government of Meghalaya, Department of Education for implementation of the new syllabus.

The studies on wastage and stagnation have also presented the real gravity of the problem in the state. The studies pointed out the main causes of wastage and stagnation and lack of necessary infrastructure in the schools. On the basis of the survey findings the Government of Meghalaya with financial aid received from the Government of India, appointed more than 200 teachers in the single teacher schools and school buildings and necessary materials were provided to the schools under Operation Blackboard scheme.

Other study like educational and vocational survey revealed the need to strengthen the Guidance and Counselling Unit in the schools for which SCERT through the Educational and Vocational Guidance Unit, had trained career masters/mistresses to take up the work in the schools. A talk was done to provide the educational and vocational information to the students for planning their careers.

An analysis of qualitative and quantitative performance of different schools in the state was another study done by the SCERT. The research findings were made known to the schools for improvement of the qualitative and quantitative performance in the schools. The analysis have also encouraged the Council to take up studies to investigate the

effectiveness of teaching subjects like Science, mathematics and English and the causes of failure of majority of students in the schools in these subjects.

Though research and studies have been conducted in different fields of school education, yet the main studies were restricted to Educational and Vocational studies and the aspirations and needs of the students. Wastage and stagnation was another area where attention has been given. Besides, one or two studies conducted in curriculum, classroom improvement studies and survey taken up by the SCERT. No studies have been taken on evaluation of textbooks, examination reforms, teacher education and in the effectiveness of the programmes conducted by the SCERT. So there is immediate need of having a research analysis wing to take up the research in different fields of education.

In-service training courses have been conducted intensively in the content of different subject areas like Science and Mathematics, English, Social Studies, SUPW and the like and also on the method of teaching in schools in the different subject areas. These training courses were meant for different categories of officers - the teacher educators, headmasters/headmistresses, inspecting officers and teachers at the different levels of education. The in-service trainings are also in the form of refresher courses and programmes of continuing education. Also significant has been

the general training provided to improve the overall performance of teachers in containing the wastage and stagnation in the schools in the state. These programmes gave an awareness to the teachers and an impetus to work to tackle with students in the classroom and to make their teaching interesting and appealing to the students.

Training of teachers on methods and techniques of teaching with the aim of equipping the teachers with the psychological techniques and methods of handling the school children for better classroom teaching-learning. Trainings on the implementation of new syllabus were also dwelt upon in various subject areas. The number of teachers trained was appreciable. In the methods and techniques of teaching and overall improvement of the school climate in the schools the total number of teachers trained in the different levels of education, both the education officers and the teachers, was 13,357 (as given in the performa at section Training and Extension). In the subject-centred training sessions a total number of teachers covered for different levels of education was also noteworthy. Science and Mathematics - 2006, Language - 1111, History - 1686 and SUPW and CE - 564 in the span of two decades.

Though the number of teachers trained in the different subject areas was very encouraging yet there is still scope for improvement. Had the different units/departments of SCERT

followed up the teachers and their works in schools, contribution of the SCERT would have been tremendous. Moreover, trainings were not conducted every year as could be seen from the statistics in the section Training and Extension. There was a lapse of one, two or even few years in some cases where training was done in the different areas. This was for many reasons. In a case like in-service training in Science and Mathematics those years was busy with workshops for preparation of instructional materials and supplementary reading materials. In the case of the Unit of Language, the training programmes in the subject had to be postponed as the unit has been organising the Crash Training Programme for primary and upper primary teachers in the use of the new curriculum in the state.

Curriculum development and development of instructional materials have been the main works of SCERT in quality improvement. The surveys and studies conducted earlier revealed that the syllabus was outdated and needs immediate revision. The SCERT took up this task and developed a revised curriculum which is based on the national core curriculum as detailed in the National Curriculum Framework. The school curriculum of Meghalaya is at par with the syllabus prescribed by the NCERT.

The SCERT has also prepared the Teacher Education Curriculum as per the NCTE instructions. The syllabus is

being implemented in the state for the last ten years. The syllabus is again revised for the second time.

Instructional materials were developed at the primary level and these are being implemented in the state except in the area of language. Analysis of these materials done by the investigator showed that the quality of the instructional materials at the primary level is very commendable. Implementation of these materials in the school are well thought of by the State Government of Meghalaya. Instructional materials in Science and Mathematics are prepared in the form of model textbooks, guidebooks and supplementary reading materials at the High School stage. In History, "Hints on Teaching History" and "Seminar on the History of Meghalaya" were developed. These serve as reference materials for teachers and students in the school. In the areas of language, booklets for use of teachers in the schools were developed and these also serve as supplementary reading materials for teachers and students in the schools.

The SCERT in an effort to improve the school education has prepared the school syllabus and instructional materials based on the new curriculum. But it took ten years for the curriculum to be implemented in the state because of procedural delays inherent in the present day set-up of the SCERT. The SCERT in effect is not an autonomous unit. It takes long time to get decisions made by the state. In the

area of development of instructional materials the work of the SCERT has been mainly at the primary level. The three language formula has been introduced in the school curriculum and materials were developed. This pertains mainly to the compilation of lessons.

The teacher education, curriculum have been developed and revised by SCERT but no instructional materials have been developed so far by the SCERT which needs immediate attention.

Besides the main functions of the SCERT, research, trainings and curriculum development, the SCERT has been improving both the quality and coverage of education through the Educational Technology Cell. The Cell arranged with the All India Radio (AIR), Shillong to broadcast improvised classroom materials through radio. This was first done twice a week but now it has been restricted to one lesson per week. To make radio programmes effective, good scripts are to be written which can be ensured only when script writers are creative and know the art of script-writing. As such it is necessary to build a good team of script-writers both at the district and state levels for teachers in the different subject areas.

To enable the schools to avail the facilities, radios and two-in-ones were supplied to the primary and middle schools. The number of radio sets distributed till 1987-88

were 527. From 1988-89, the radio sets were replaced by two-in-ones under the scheme INSAT Utilisation programme. The number of sets distributed was 3867 till 1993-94.

To improve the classroom climate, use of teaching aids is a must. Most of our schools are ill-equipped. Teaching aids, toys, game-materials etc. are necessary to make the classroom instruction more effective, lively and attractive. Thus the trainings for preparation of low or no cost teaching aids were held at the state and district centres and 285 teachers were trained in all.

Child-to-child centres were opened with the main aim of bringing the out-of-school children to the mainstream of education. Those centres were run by the primary school teachers appointed specifically to help develop in children the capacity to handle facts, problems and different situations at their level and to stimulate them to identify themselves with the environment and awaken in them a concern to take care of their sibling. Till 1993-94, the centres were increased from 5 to 14. The SCERT since its establishment has to the possible extent provided educational and vocational guidance to students in the state. The Vocational Guidance Unit of the SCERT is maintaining an information service unit where students and parents seek information on educational and vocational fields. The SCERT is also strengthening the guidance service in the school through training of career

masters/mistresses for making them aware of the need of giving guidance in schools and to familiarize them with different services in the guidance programmes. Development of charts and posters in educational and vocational aspects of guidance was done through workshops-cum-training. Career conferences are regular and are organised in almost all the districts of the state for the benefit of high school students. The number of students covered under this scheme till 1994-95 was 9753 high school students. But there is scope to improve in this field. No school in the state has vocational wings and the counselling unit is very weak in the Council.

The SCERT is also paying special attention towards improving the educational standard of the tribal students through proper academic guidance in creating awareness and providing necessary assistance. The following are worth mentioning.

(i) Special coaching class in Science and Mathematics were started in 1978-79 at 5 centres and these centres were increased to 55 in 1994-95. The main aim of the programme is to tap, nurture and guide the tribal students in Science and Mathematics education. It also aims at popularising Science and mathematics and to lay foundation in these important subjects. From 1981-82 similar coaching classes in the teaching of English were also given in these centres.

(ii) Coaching classes for P.U. Science tribal students of Meghalaya - The scheme aims to bridge the gap between the HSLC course and the P.U. Science course and to obtain the best possible results at P.U. level.

(iii) Special coaching classes to private HSLC students - The analysis of HSLC results done by SCERT revealed that the failure of private candidates was higher than private candidates and the number of failure was high among tribal students. In order to reduce the huge number of failures among the private tribal students in the HSLC examination students the Council has been organising special coaching classes in five major subjects, i.e. Mathematics, Science, English, History and Geography for a period of 6 months. This scheme was started in the district headquarters and now it is extended to 15 centres throughout the state.

Though progress report (SCERT report) show the improvement in the HSLC results yet the impact is not great as there were many failures inspite of the fact of their attendance in these coaching classes.

(iv) National Talent Search - This is a scheme of the NCERT implemented by the SCERT. 25 students are selected after the students qualified the state level test for the national level test.

(v) National Scholarship for Talented Children of Rural areas - This is the Government of India scheme for

identifying talented students from rural areas and providing scholarship to enable the students to go for better quality education.

In the area of education evaluation, spadework has been done by the SCERT. These were in the form of workshops which were meant to introduce reforms in the examination system in the state. Three workshops were held and sample model question papers were developed during the programmes. These were published in a booklet form for reference of the school teachers. Two of these workshops were on Science and Mathematics and the other in History.

Though the programmes were conducted by the SCERT in the area, no attempt has been done in the other subject areas like language, social studies as a whole. It may also be mentioned that the work need to be taken up afresh with the implementation of the new syllabus in the state.

Some efforts were made by the SCERT towards implementation of universalisation of elementary education in the state. The SCERT has also taken up two projects assisted by UNICEF Project 3 on Development and Community Education and Participation (DACEP) and Project 5 on Comprehensive Access to Primary Education (CAPE). Project 3 aims at involving the community in the process of universalisation of education. Two Community Centres were set up in the state. The other project, i.e. Project 5 aims at developing locally

self-learning materials. Three Learning Centres were opened and self-learning materials developed and these are supplied to these centres where everyone has access to such education.

The centres in both the projects are functioning in the state and have helped develop interest in the out-of-school students towards education.

The SCERT has been active in providing extension services to field level institutions in the entire state. There were as many as thirty seminars and training extended the SCERT personnel on the request of the institutions which were conducted at various venues in the state, which consist of one day to a week programme or short term training programmes. These proved very useful to the institutions and teachers of those schools as enlightenment has been provided on any problems referred to by the school.

The SCERT has also not been able to make much headway in Environmental Education. The SCERT has not made a separate syllabus in Environmental Education. But while revising the school curriculum the SCERT has taken special care relating to Environmental Education. It has included topics at the school level in graded system so that there would be a general awareness on protection and judicious use of environment. It has also included topics to create awareness of the vice of pollution and its evil consequences. These topics are widely distributed from classes I to X.

The SCERT has not taken any programme of education for special groups of children with special needs like the deaf and dumb, the blind, the physically handicapped and mentally retarded children.

The SCERT has also not been able to take up research and training programmes in respect of vocationalisation of education has been accepted by the State Department of Education, Government of Meghalaya as a part of the reform process of education in the state. There was just one research study conducted in 1980, "An Exploratory Survey on the Establishment of Model Vocational School" but no follow-up action was done by the SCERT. There were no efforts to plan for training of teachers, preparation of curricula, selection of courses for vocational education. The only work carried out by SCERT till very recently was preparation of curriculum on vocational stream which was submitted to MBOSE for introduction at +2 stage.

Computer education - In this emerging area of work with the state planning to supply computers to schools, the SCERT has not been able to undertake any research training activity. One of the Lecturers was sent abroad in the recent past for training in computer education. The SCERT has made a proposal of taking up the computer education in the state.

The SCERT does not have any built in mechanism to conduct evaluation of its own functioning. No study has so

far been undertaken to adjudge the relevance and adequacy of plans, programmes and implementing strategies in the functioning of its different academic wings. Though the programmes undertaken by the SCERT are planned and organised well, nothing could be said about the impact that they have had on the whole process of school education in the state.

Since the time of its inception, strenuous efforts have been made to undertake activities of various types, more emphasis was given to the training aspect especially in-service teacher training since it is considered an important input in raising the quality of education. With a view to obtain some dependable information regarding the effectiveness of in-service programmes undertaken by the Council, the investigator conducted a follow-up study on a sample of respondents involved in three such programmes. These programmes are (i) In-service training of school teachers in Science and Mathematics, (ii) Training-cum-Workshop on SUPW for upper primary teachers, and (iii) A Special Orientation Programme for primary school teachers (SOPT). The responses of the field officers - inspecting officers, teacher's educators and Headmasters/Headmistresses of secondary schools were also sought in this regard with a view to ascertain the usefulness of the SCERT programmes for qualitative improvement of school education.

The field officers agreed that SCERT as the academic of SCERT has through its various in-service training programmes and development of curriculum played its role effectively. They are unanimous that such training has helped the teachers in improving the methods and approaches in teaching in the classrooms. They felt that teachers with such training showed more confidence and were found more efficient. There was, however, the general feeling that the duration of training courses particularly the training for teaching Science and mathematics was too short with the result that the courses had to be covered hastily and no time was left for discussion on practical difficulties. There was no provision for experiments and demonstrations during the training programmes. Therefore, it was their opinion that duration of such programmes should be lengthened to make the programme more effective.

The field officers expressed confidence in SCERT personnel and suggested their involvement in supervision and inspection of schools along with personnel of the Inspectorate for monitoring of the state of affairs in the schools. They also felt that teacher education should be under the full control of SCERT. Development of curriculum, instructional materials and supervision should be totally under SCERT.

In relation with the MBOSE, the field officers feel that there is no proper coordination between the two. They suggested that SCERT should be more involved in the implementation of syllabus in an effective manner and in helping MBOSE to be more efficient in its functioning. They also suggested that development of curriculum in computer education should be taken up by the SCERT as new areas of education.

### **6.3 Conclusion and Suggestions**

From the discussion above, it can be concluded that the programmes and activities undertaken by the SCERT have been of illuminating type leading to improvement of quality in school education, yet the desired level of achievement has not been reached because they were beset with many problems which occur at different levels. Therefore, to make the programmes more useful and relevant, there is need for introspection on the part of the planners, organisers, administrators, field officers and the teachers on revitalisation of the Council's role and functioning.

Some significant findings of the present study impel the investigator to make certain suggestions in respect of different programmes conducted by the SCERT.

1. The study reveals that there were not many research studies conducted by the SCERT during the span of twenty

years. Since this is the main function of the SCERT, more emphasis should be given to research activities. This could be done if reorganisation of departments of SCERT be undertaken to include a reasearch wing in the Council.

2. The study also reveals that the curriculum development of school education was done only once in a span of twenty years. There is need to have a fresh look into this aspect. The Council could revitalise its functions in this area and see that the curriculum is revised from time to time. In respect of teacher curriculum, revision work has been completed for the elementary stage but no instructional materials have been developed so far in this area. So there is an immediate need to develop the instructional materials for elementary teacher education and this can be effectively carried out if there is a curriculum development and publication wing in the Council.

3. In respect of teacher education and teacher training programmes, the study revealed that the resource persons when drawn from outside the Council staff appeared not well-versed in the content and teaching process of the subjects. It is, therefore, suggested that prior training be provided to such personnel.

4. The present study has provided clues suggesting that the programmes of the SCERT are relevant, but they lose their

validity in the absence of proper follow-up of each such programme by the SCERT personnel.

5. Each orientation/refresher course should be evaluated towards its end in a free and frank atmosphere without any reservation.

6. The study also reveals that one of the factors responsible for the lack of efficacy of the orientation programme of the SCERT is the lack of demonstration lesson or the absence of experimental class to apply the theories and strategies taught in the courses. Thus a wide gap between the theory of orientation courses and the methodology of teaching required in the classroom teaching remains unbridged. Hence, demonstration lesson should be made an essential feature of the training courses. Moreover, where possible, use of laboratory should be tried.

7. The study also reveals that the duration of these training courses was not adequate. It is just enough to cover the courses and there is not time left for general discussion of practical difficulties. Thus the duration of the course should be lengthened to be able to deal effectively with anything that may come within the purview of discussion.

8. Practical needs of the teachers should be identified through field surveys and the programmes be organised in accordance with their needs.

9. The present study shows that the coordination between different agencies involved in the process of education is not effective. In matters of the curriculum implementation a close coordination between the SCERT and MBOSE should be established. In matters of orientation programmes, close coordination between the field officers and the SCERT staff should be well established.

10. The study also reveals the criteria used for deputation of teachers to these training programmes was defective. More often the same teachers were deputed for different programmes conducted by the SCERT. Hence, there is a need for the district officers to maintain the names of teachers deputed to the training programmes. Only those who have not attended a programme before, should be sent for training.

11. The ultimate aim of the programmes of the SCERT is to raise the achievement level of the students in scholastic and non-scholastic areas. But the low percentage of pass in the MBOSE examination, shows that this aim has not been achieved so far. The reason for it can be investigated through a separate study.

12. The study also reveals that there were many emerging areas which need to be taken up by the SCERT like Computer Education, Vocationalisation of education,

environmental education and the like. This demands immediate attention.

13. In the area of examination reforms more efforts should be made to introduce competency based and comprehensive evaluation of the students performance and their all-round development.

14. The study reveals that there is wide frustration, among the academic officers of SCERT due to absence of channels and avenues for upward mobility. An introspection on the part of the planners and administrators need to be undertaken.

15. There is also need for a separate directorate of the SCERT for its smooth and efficient working in the qualitative improvement of school education in the state.

16. There is also an urgent need of providing the necessary infrastructure for SCERT for effective organisation and conduct of various programmes.

17. The library of SCERT should be better equipped with up-to-date books and journals. More important is the need for establishment of a documentation centre with all the facilities.

**Chapter VII**

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**SUMMARY OF FINDINGS**

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## **7.1 Introduction**

The SCERT, Meghalaya was set up in 1976 with the main objective of improvement of school education in the state through programmes, research, curriculum development and in-service teacher's training. The institution is nearly two decades old and has been organising different types of programmes for improvement of the quality of school education. The present study was conducted to trace the development of SCERT, the programmes and activities undertaken by it and influence of its programme and activities on the system of school education in Meghalaya. It was an attempt to highlight the strengths and weaknesses of the organisation and the direction of its growth in future.

## **7.2 Objectives of the Study**

The study has the following objectives:

1. To trace the origin and development of SCERT in the State.
2. To survey the various action research activities undertaken by the SCERT and to assess their contribution on Education system of the state.
3. To assess the effect of the SCERT's work in the area of curriculum development and production of learning materials.

4. To study the various training programmes organised by the SCERT and to assess their effect on the education system in the state, and

5. To find out the problems faced by the SCERT in the state.

### 7.3 Methodology

The present study is descriptive in nature and seeks to describe the growth and development of an institution and to assess the effectiveness of the various programmes of SCERT in the state. Thus, the investigator adopted the following methodology.

(i) Survey of records available in office; both primary and secondary sources were explored by the investigator to trace the origin and development of SCERT and to identify the various programmes and activities undertaken by SCERT.

(a) Questionnaire: Three questionnaires were developed for use with a sample of beneficiary teachers who had attended one of the three training programmes of SCERT, namely (1) In-service training of teachers in Science and Mathematics, (2) Training-cum-workshop in SUPW for upper primary school teachers, and (3) Special orientation programme for primary school teachers (SOPT). These elicited information mainly on their reaction to training programmes conducted by the SCERT. A separate questionnaire was also

used with Heads of Secondary Schools, Principals, Elementary teacher training institutes and the District Inspecting Officers - Inspectors of Schools and Deputy Inspectors of Schools to find out the role played by SCERT.

(b) An interview schedule was developed to use with academic officers of SCERT to elicit their responses regarding organisation of the programmes and the problems faced by them in this regard.

The survey of records was also supplemented by meeting the officers in Education Department and holding discussions on the issues under study. The discussions were used for furthering the information already collected.

#### **7.4 Population and Sample**

The population of the present study included the beneficiaries of the SCERT training programmes. In respect of the first programme, the population covered 1630 secondary and upper primary school teachers and out of which a sample of 200 school teachers was taken at random from all the districts of the state. 126 respondents (68 high school and 58 upper primary schools) returned the questionnaires. The population of the second programme was 564 upper primary school teachers of which 57 teachers were taken at random as sample of the study. The third programme was for primary

school teachers and the population was 3416. 200 school teachers formed the sample in the third programme.

### **7.5 Methods of administration**

The questionnaires on the first programme, i.e. on Science and Mathematics training programme, were sent through the help of the SCERT officers and district officers and some were posted. The questionnaire was personally administered by the investigator in the second programme. This was done after they had completed their training programme. In respect of the third programme, the questionnaire was mailed to the teachers after they had attended the training programmes. The investigator mailed the questionnaires to the district officers which were returned by mail.

The investigator also interviewed the academic officers and those officers who were actually involved in the implementation of various programmes of SCERT.

### **7.6 Analysis of Data**

The responses elicited from the questionnaires and interview schedule were tabulated, compiled and analysed. Calculation of percentages was found out to assess the effect of SCERT training programmes.

The official documents, records, reports and the like were also analysed to find out the effectiveness of the SCERT

programmes and activities in the areas of research and curriculum development.

## **7.7 Summary of findings**

The major findings of the study are presented in three main headings as follows:

### **7.7:1 Development of SCERT**

1. The SCERT was set up on 4th October, 1976 with an OSD to carry out the following functions - (a) Research and Development, (b) Curriculum development and production of materials, and (c) Trainings and extension.

2. The SCERT was started with one department, i.e. Planning, Statistics and Research to which was then added the Educational and Vocational Guidance Bureau formerly with the Directorate of Public Instruction.

3. Over the years, it has developed into a huge structure. From a single department, it has multiplied to eleven departments. These are Education, History, Science, mathematics, Statistics, Educational and Vocational Guidance, English, Planning, Educational Technology Cell, Evaluation and Translation.

4. With the addition of departments, the personnel employed also increased. From a single person heading the organisation, it has grown in size with as many as 30

academic officers (including Director and additional Director, SCERT), one Secretary and 42 supporting staff.

5. The developmental trend of SCERT can be traced in terms of financial provisions made for SCERT staff and the programmes of SCERT. From a paltry allocation of Rs.2,00,000 (Rupees two lakhs) for staff expenditure made in 1976-77, the expenditure has increased to Rs.46,66,000 (Rupees forty six lakhs sixty six thousand) in 1995-96, an increase of twenty three fold in a span of nineteen years.

6. The expenditure pattern also increased on programmes and activities of the SCERT. From Rs.56,650 (Rupees fifty six thousand six hundred and fifty) it has increased to Rs.24,04,000 (Rupees twenty four lakhs four thousand), an increase of forty two fold in a span of nineteen years.

#### 7.7:2 Programmes and Activities

The types of programmes and activities so far completed by the SCERT may be grouped as -

- (1) Research and development,
  - (2) Curriculum development and production of materials,
- and
- (3) Training and extension.

The SCERT organised thirty seven seminars and conferences between 1980 and 1993 for discussion of the

problems of education faced by the state and to evolve strategies for tackling them.

#### 7.7:2.1 Research and Development

During the period 1978 to 1995, SCERT conducted fourteen research studies in all. These studies pertained to school education curriculum studies, educational and vocational needs of the students, classroom improvement studies and studies on the performance of students.

#### 7.7:2.2 Curriculum Development and Production of Materials

Among the activities undertaken under this head are:  
(A) Revision of curriculum, and (B) Development of instructional materials as follows:

##### (A) *Curriculum Development* -

(i) Development of curriculum at the primary level was done under UNICEF Project 2, Primary Education Curriculum Renewal (PECR) by the SCERT and is being implemented in the schools.

(ii) Development of Teacher Education Curriculum was done at the elementary stage both for two years Normal Training Institution course and one year elementary course for Basic Training Centres.

(iii) Revision of Secondary School Curriculum was also done by the SCERT based on the National Curriculum Framework. The curriculum is implemented in the state.

*(B) Development of Instructional Materials -*

(i) The development of curriculum at the primary stage was simultaneously followed by preparation of instructional materials in the form of textbooks, workbooks and guidebooks in the areas of Language, Mathematics, Environmental Studies (EVS), Socially Useful Productive Work (SUPW) and Creative Expression (CE). These are introduced in the schools.

(ii) At the secondary stage, no instructional materials were developed by the Council itself. The MBOSE instead adopted the NCERT books for use at the secondary stage. However, development of instructional materials for use as reference material at the upper primary and secondary stages was undertaken by the SCERT in different subject areas. The materials thus brought out include the following:

(a) Science: Model textbooks and guidebooks for classes VII, VIII, IX and X was developed and these serve as reference materials in the schools. A handbook for Demonstration Experiments in carrying out the experiments was also developed to facilitate the learning situation in classroom.

(b) In mathematics, guidebook on "A Hint on Teaching Mathematics" for high school stage in two volumes was developed and these serve as reference materials.

(c) In Language, the unit prepared an error analysis based on the performance of HSLC candidates and a booklet entitled "A Little About English" was published by the Council for use of English teachers. It has also prepared a booklet entitled "Improved English" for the benefit of the teachers and students. Publications of Grammar Companion called "Correct English for High School" was also published. A booklet on "Seminar on Standardisation of Khasi Writing" was also published by the Council for use of the language teachers in their classroom teaching.

Besides these publications on the subject areas, the SCERT also developed and published booklets on general educational themes of interest and relevance to practising secondary school teachers. This helped the SCERT to strengthen its programmes and activities meant for qualitative development of school education in the state. The major works published in this category included the following:

(a) In the area of Vocational Guidance, a booklet on "Educational and Vocational Guidance and Services" was published.

The talk by the Counsellor entitled "Be an Engineer" was compiled and published in a booklet form and sent to schools. The educational and vocational charts for high school have also been published.

(b) The Educational Technology Cell has also been translating and printing the "Primary Teacher" journal published by NCERT. The same is being distributed to the schools. Radio scripts were also compiled and printed. These were sent to all schools which could not avail of the facility of the radio programmes. Publication of Manual on Low Cost Teaching Aids which was developed in Khasi and Garo were distributed to the schools. Development of a guidebook for single teacher schools was also developed and distributed to single teacher schools.

(c) In the area of educational evaluation, the SCERT has conducted three workshops on examination system. Two such workshops focussed on Mathematics and Science and another in History. The first one was held in 1981 where a booklet entitled "Setting Better Questions, Model Question and Question Papers in Mathematics and Elementary Scientific Knowledge for High School Stage" was developed. The second programme was held in 1993 and was based on the new syllabus being implemented in the state.

Another ten-day programme organised in 1982 related to History and was for developing sample question papers in

History. The report of the programmes was compiled in a booklet form named "Report on the Workshop for Developing Model Question Papers in History" 1982. These booklets were distributed to schools for their reference.

#### 7.7:2.3 Training and Extension

Teacher education and teacher training programmes have been major thrust functions of SCERT since its inception. The training programmes were mainly grouped into (a) Programme of school subject area and (b) Supporting programmes and services.

(a) The training programmes on subject area were again divided into -

(i) General learning programmes meant for improving the general competence of teachers to handle the children in classroom. These include training of heads of schools, teacher educators, inspecting staff, teachers in different aspects of school education, training of school teachers in the use of curriculum and the like. The numbers of teachers trained during the period from 1978 to 1996 was 9439 lower primary school teachers, 2077 upper primary school teachers, 1589 secondary school teachers and 252 teacher educators, inspecting staff and heads of institutions. The total number was 13,347 in all.

(ii) The subject-centred training programmes were conducted by the SCERT in different subject areas of the school curriculum and covered teachers of the state at different stages of education. These cover training courses in the following :

*Science and mathematics* - Training courses were conducted for all stages of school education and the number covered during the period from 1977-78 to 1994-95 was 376 lower primary teachers, 921 upper primary teachers and 709 secondary school teachers. In all, the total came to 2006.

*Language* - In this area the teachers were trained with the main objective to make them competent to teach English in schools. The number of teachers covered was 180 lower primary school teachers, 653 upper primary teachers and 278 secondary school teachers. The total was 1111 in all.

*History/Social Studies* - In the first few years training programmes were restricted to History only. But with the implementation of the new syllabus the training courses were widened covering the components of social studies, namely Economics, Civics, Geography and History. The total number of teachers trained was 1686 in all covering 357 lower primary teachers and 1339 upper primary teachers.

*Socially Useful Productive Work and Creative Expression (SUPW and CE)* - These are newly emerging subjects in the new curriculum. The training programmes were started only in

1992-93 and continued till 1995. The main objective was to acquaint the teachers with concepts of the new subject areas and to train them in the basic skills. The training courses were conducted mainly for upper primary school teachers and the total number was 564.

(b) Supporting programmes of other units of SCERT - The training programmes of the academic departments was supplemented by programmes of other units of SCERT. These put across the inputs for qualitative improvement of school education in the state and included the following:

*Educational Technology Cell* - The Cell organised different programmes like educational broadcast, training of script-writers, Teach English programmes through distance education, promotional project for using radio in educational institutions where all subject areas were touched and Continuous Enrichment Programme. To ensure utilisation, radio sets were distributed to schools and during the period from 1978-79 to 1987-88, 527 radio sets were distributed and from 1988-89 to 1993-94, two-in-ones were distributed with blank cassettes. The number of sets distributed was 3867 till 1993-94. Preparation of low or no-cost teaching aids for improvement of classroom climate and pilot project centres for introducing educational technology at the primary level. These centres were opened with the aim of drawing maximum children to schools by the use of teaching aids, introducing

playway methods and involvement of pupils in teaching-learning process to a great extent. These centres were first opened in 5 localities in 1979-80 and teachers were trained in running these centres. Child-to-child programme was carried out in 5 centres which have increased to 14 during 1993-94.

*Vocational Guidance Unit* - Different programmes were conducted -

- Training of career masters/mistresses. The training courses continue almost every year and the number of teachers trained was 399 till 1995.

- Workshop-cum-training of career masters/mistresses where development of charts and posters was done.

- In the provision of educational and vocational services, the Council has undertaken information service and pupil inventory service.

*Students Enrichment Programme*

Those programmes were conducted by different units of SCERT and are meant for improving the educational standard of tribal students.

- Special coaching class in Science, Mathematics and English which were first started in 5 centres and has increased to 55 centres in 1994-95 are meant to improve Science education in the state.

- Special coaching class for P.U. tribal students aims to bridge the gap between HSLC and the P.U. Science course.

- Special coaching classes to private HSLC students is organised to improve the pass percentage of tribal students.

- State talent search test is organised by SCERT every year to encourage talented students to take up Science by giving incentive to them if they continue to do P.U. Science.

- National talent search is conducted at two levels - by the state and if qualifying students are appearing the test conducted by the NCERT and scholarships are awarded to the talented students.

National scholarship test for talented children of rural areas is also conducted every year for identifying talented students from rural areas and providing scholarship to enable them to go for better quality education.

In the area of educational evaluation, spade work has been done. These were in the form of workshops for introducing reform in the examination system in the state. two workshops were on Science and mathematics and one in History. Sample model question papers were developed during the programmes and published in a booklet form.

#### *Extension Service*

The SCERT has been active in providing extension service to field level institutions and there were more than 30 seminars, meetings and training sessions in this area.

Some efforts were also made by the SCERT towards implementation of universalisation of elementary education in the state through the UNICEF assisted Project 3 on Developmental and Community Education and Participation (DACEP) and Project 5 on Comprehensive Access to primary Education (CAPE). Through these projects many programmes were organised for development of self learning materials which are introduced and used in the centres started under the projects.

#### 7.7:3 Evaluation of Training Programmes

With a view to obtain reliable information regarding the effectiveness of the training programmes undertaken by SCERT, the investigator conducted a follow-up study on a sample of respondents involved in three such programmes. These are (i) In-service training of school teachers in Science and Mathematics, (ii) Training-cum-workshop on SUPW for upper primary school teachers, and (iii) A special orientation programme of primary school teachers (SOPT). The responses of the field officers - inspecting officers, teacher educators and heads of secondary schools were also elicited to ascertain the usefulness and relevance of the SCERT programmes for qualitative improvement of school education in the state.

The respondents numbering 126 of the first programme, i.e. In-service Training in Science and Mathematics agreed that the training programmes undertaken by the SCERT was well organised and have helped them to understand the concepts better and have also learnt the techniques and approaches of teaching the subjects. But they also found that duration of such programmes was too short and no demonstrations were given for lack of time. They also expressed that trainings with resource persons from SCERT proved more useful to them as they are well-versed with the subject. This suggested that resource persons from outside SCERT should be well-trained.

The respondents of the second programmes expressed satisfaction on the relevance of the training programme. They expressed that they learnt many things from the programme - skills, attitudes and knowledge. But the most important one was the change of attitude of teachers towards the subject. But they also expressed the inadequacy of the duration.

The general evaluation of the third programmes showed that primary school teachers were satisfied with the training programmes but expressed their problems in handling the operation Blackboard materials since these were not made available to them in the schools. Some teachers who have received them expressed that the materials they received were not in full set. They found the methods used in the training effective but expressed their desirability to have the course

material for their ready reference. They also suggested that the duration should be increased.

The general observations of all the field officers were that the SCERT programmes and activities have contributed in raising the quality of education in the state. They have expressed their confidence on the working of SCERT especially in training programmes undertaken by it. They found that the teachers with such training showed more confidence and were found to be more effective in handling classroom situations. They also suggested that SCERT should be made more involved in the inspection and supervision of school teachers and teacher training institutes. But they also expressed that more autonomy should be given to SCERT for its smooth and efficient working.

They expressed that SCERT should be made more involved in the implementation of the curriculum by the MBOSE in order to keep pace with the new curriculum. They felt that instructional materials for elementary training institutes should be prepared by SCERT based on the revised curriculum. They also felt that SCERT should take up areas like computer education which is the emerging area in the present day education and new programmes should be identified in collaboration with NCERT.

## 7.8 Conclusion

The programmes and activities of the SCERT appear to be relevant and useful to the beneficiaries in general but they need to be reformulated to tackle the following problems expressed by the respondent beneficiaries.

(i) The training period should be increased to cover all the topics effectively.

(ii) The method of teaching used in these training programmes should include besides lecture, demonstrations and experiments.

(iii) The inadequacy of resource persons makes the programmes less effective. If they are to be employed as resource persons they should be trained by SCERT prior to the programme.

(iv) The resourcefulness of the SCERT personnel was revealed by the respondents who expected the SCERT to undertake varied types of programmes. The government should take note of this fact. The competence of the academic officers of SCERT and their sincerity should be recognised by the government in a proper manner. As shown by the respondents (academic officers) in the interview with them, most of the senior efficient officers have left the institution due to frustration they had with the organisation. About 8 of them are on lien, joining different departments of the government in better posts. This problem

has to be taken seriously if SCERT is to continue taking the leading role in the improvement of quality of school education in the state.

#### **7.9 Suggestion for Further Research**

(1) More detailed follow-up studies on all the training programmes conducted by the SCERT could be taken for further research.

(2) Research studies in emerging areas of school education with particular reference to newly introduced object areas.

(3) A follow-up study on the impact of the implementation of the new syllabus at the school level could be done in the field.

## BIBLIOGRAPHY

- Adaval, S.B., The Third Indian Year Book of Education, Educational Research, NECERT Publication Unit, New Delhi, February 1968.
- Aggarwal, J.C. and Agrawal, S.P., Role of the UNESCO in Education, Vikas Publishing House Private Ltd., New Delhi, 1982.
- Aggarwal, Y.P., Diploma in Educational Planning and Administration - An Evaluative Study of the Institute, NIEPA Research Studies, N. Malhotra (ed), NIEPA, New Delhi-6, 1994
- Angami, Z., A Study of SUPW Programme in the High School of Kohima Town. M.Ed. Dissertation, 81-83, NEHU, Shillong, 1993
- Ansari, A., Problems of Professional Efficiency of Women Teachers in Bhopal Secondary Schools, Third Indian Year Book of Education, Educational Research, S.B. Adaval (ed.) NCERT Publication Unit, NCERT New Delhi, 1968.
- Ali, Ismail, A Follow-up of the Islamic Preparation Programme of Kuwait University. Dissertation Abstracts, Vol.51, No.3, September 1990.

Arun, Kumar, A Study of the Effect of Reorganising the Prescribed Curricular Framework on the Combinatorial Reasoning and Controlling Variables on Grade IX Students. Fourth Survey of Research in Education, Vol.I, M.B. Buch (ed.), NCERT, The Publication Department, 1991.

Babu et al., Acceptance, Awareness and Impact of the Regional College of Education (RCE) Mysore (1986), Fourth Survey of Research in Education, Vol.II, M.B. Buch (ed.), The Publication Department, NCERT, New Delhi, 1991.

Bahuguna, S.D., Evaluation of Commerce Education upto Higher Secondary Level in Rajasthan, Second Survey of Research in Education, M.B. Buch (ed.), M.S. University of Baroda, Baroda, 1979.

Bajracharya, R.K., A Study of Science Education in the Secondary Schools of Nepal with a View to Evolving a Functional Model for Improving the Science Education. Fourth Survey of Research in Education, Vol.I, M.B. Buch (ed.), The Publication Department, NCERT New Delhi, 1991.

Banerjee, I.C., Training of Primary Teachers in India, Unpublished Thesis, M.S. University of Baroda, Baroda 1967.

Bareh, H., Meghalaya, R.K. Printers, Delhi-7, 1974.

- Basu, R.K., The Place of Elementary Science in Secondary Schools in India, M.Ed. Dissertation, Delhi, 1951.
- The Third Indian Year Book, Educational Research, S.B. Adaval (Ed.), NCERT, The Publication Unit, 1968.
- Batula, M., A Critical Inquiry into In-service Educational Programme conducted by Secondary Teachers Training College of Gujarat State, 1987. Fourth Survey of Research in Education, Vol.II, M.B. Buch (ed.), NCERT, The Publication Department, NCERT, New Delhi, 1991.
- Bhatia, R., Evaluation of New B.Ed. in the Colleges of Education Affiliated to the University of Bombay, Ph.D. Education, Bombay University, 1987.
- Bhattacharya, A Critical Study of Science Education in Assam and Meghalaya Schools (1979), Fourth Survey of Research in Education, Vol.II, M.B. Buch (ed.), NCERT, The Publication Department, NCERT, New Delhi-16, 1991.
- Blue, C., An Evaluation of New Teacher Assistance Programme a Large Suburban School System, Ed.D. University of Mary College Park, Dissertation Abstract, International Vol.51, No.3, September, 1990.

- Board of Secondary Education, Curriculum and Syllabi for Secondary Schools Classes V to X, Board of Secondary Education, Assam, Guwahati 781 001, 1973.
- Buch, M.B., Second Survey of Research in Education, M.S. University of Baroda, Baroda, 1979.
- Buch, M.B., Third Survey of Research in Education, NCERT, The Publication Department, NCERT New Delhi, 1987.
- Buch, M.B., Fourth Survey of Research in Education, Vol. I & II, NCERT, The Publication Department, NCERT, New Delhi, 1991.
- Buch, M.B., Vital Issues in In-service Education, NIE Journal, September 1966, Vol. No.1, NCERT, Delhi-16.
- Chaudhari, I.S., A Critical Evaluation of School Textbook Improvement Programmes in India, Second Survey of Research in Education, M.B. Buch (ed.), M.S. University of Baroda, Baroda 1979, p.288.
- Das, R.C., Effectiveness of Teacher Training in Reducing Educational Wastage, SIE Assam (1978). Fourth Survey of Research in Education, Vol. II, M.B. Buch (ed.), The Publication Department, NCERT, New Delhi, 1991.

Dawasthalee, R.B., An Investigation into the Present Secondary Education Curriculum (Std.V to X) in Maharashtra State with a view to revision in the context of vocationalisation at all levels, Ph.D. Thesis, Second Survey of Research in Education, M.B. Buch (ed.), M.S. University of Baroda, Baroda, 1979.

Dharam, V., A Critical Survey of the Suitability and Working of the New General Science Syllabus in the Punjab, M.Ed. Dissertation, 1954, Third Indian Year Book of Education, Educational Research, S.B. Adaval (ed.), NCERT, The Publication Unit, NCERT, 1968.

Devi, K.D., An Investigation into the Programme of Teacher in Manipur at the Pre-Service and In-Service. Second Survey of Research in Education, M.B. Buch (ed.), M.S. University, Baroda, 1979.

Eshan, M., A Study on the Environmental Education Programme in the Primary Schools in Bangladesh, 1985. Fourth Survey of Research in Education, Vol.I, M.B. Buch (ed.), NCERT, The Publication Department, NCERT New Delhi-16, 1991.

George, P., The Impact of the New Syllabus on School Curriculum, A Seminar Paper, SCERT, Shillong, 1992.

Gothivrekhar, The Secondary School Curriculum in the Province of Bombay - A Critical Analysis and Examination of Its Basis, Present and Future Reconstruction. The Third Indian Year Book, Educational Research, Adaval (ed.), The Publication Unit, NCERT, New Delhi, 1968.

Government of India, Ministry of Education, Report of the Secondary Education Commission (1952-53), Reprint, New Delhi, The Manager of Publication 1954.

Government of India, Ministry of Education, Report of the Education Commission - Education and Development (1964-66), Delhi, The Manager of Publication, 1966.

Government of India, Report of the Review Committee on Future Development of National Council of Educational Research and Training, New Delhi, Publication Unit, NCERT, 1969.

Government of India, National Policy on Education, 1986, Ministry of Human Resource Development, Department of Education, New Delhi, 1986.

Government of India, National Policy on Education, 1986 - Programme of Action, Ministry of Human Resource Development, Department of Education, New Delhi, 1986.

Government of India, Towards an Enlightened and Humane Society, Ramamurti Review Committee Report, New Delhi, 1990.

Government of India, Recommendation of Central Advisory Board of Education, 37 Session, Ministry of Education, New Delhi, 1974.

Government of India, Provisional Census 1991.

Government of India, National Policy on Education, 1986, Ministry of Human Resource Development, Department of Education, New Delhi, May 1986.

Government of Meghalaya, National Policy on Education, 1986, Programme of Action 1992 (Draft), Department of Education, Shillong, 1992.

Government of Meghalaya, Programme of Action 1995, Department of Education, Shillong, 1995.

Government of Meghalaya, Government Notification No.EDN. 167/89/47 Dated 23rd March, 1990, Government of Meghalaya, Education Department.

Government of Meghalaya, White Paper in Education, Department of Education, 1988.

Government of Meghalaya, Budget Estimate, Planning Department, Government of Meghalaya, 1995-96.

Government of Meghalaya, Budget Allocation for 1995-96, Education Department, 1995.

- Government of Meghalaya, Education Meghalaya '76, Department of Education, Youth Welfare and Sports, Meghalaya, 1976.
- Government of Meghalaya, Meghalaya Education Commission 1977, Department of Education.
- Government of Meghalaya, Forestry in Meghalaya - An Overview, Directorate of Forest, Meghalaya, Shillong, 1994.
- Gowda, A.C.D., In-Service Education of Secondary School Teachers. Third Indian Year Book of Education, NCERT, The Publication Unit, NCERT, 1968.
- Ghosal, T., An Inquiry into the Curricular-Trend in the Secondary Schools of India during the British Rule (A Comparative Study), Second Survey of Research in Education, M.B. Buch (ed.), M.S. University of Baroda, Baroda, 1979.
- Ghosh, A., A Study of Backwardness in English in the Secondary Schools of West Bengal, Second Survey of Research in Education, M.B. Buch (ed.), M.S. University of Baroda, Baroda, 1979.
- Gupta, P.K., A Critical Analysis of the Elementary School Curriculum in NEFA (Arunachal) with suggestion for improvement, Second Survey of Research in Education, M.B. Buch (ed.), M.S. University of Baroda, Baroda, 1979.

- Gupta, N.D., Education in Shillong - A Profile, Shillong Centenary Celebration - A Souvenir, 1987.
- Jaswal, S.S., A Study of the Reactions of the Teachers towards the New General Science Syllabus for Higher Secondary Schools of Punjab, Third Indian Year Book of Education, Educational Research, S.B. Adaval (ed.), NCERT, The Publication Unit, New Delhi, 1968.
- Kamat, A.R., The Educational Situation and Other Essays on Education, People Publishing House, New Delhi, September, 1973.
- Kamath, M.S., Syllabus in General Science for Standard V-VIII and the Visual Aids needed, M.Ed. Dissertation, Third Indian Year Book of Education, Educational Research, NCERT, The Publication Unit, New Delhi, 1968.
- Karbal, H.T., The Effectiveness of a Workshop as a Means of In-service Education of Teachers, Dissertation Abstracts, Vol.25, Sept.-Oct. 1964, No.3-4.
- Kasbekar, N.Y., Syllabus in General Science from Standard IX to XI and the Visual Aids needed. M.Ed. Dissertation, Bombay, 1957.
- Kaul, G.N., In-service Education, Education of Teachers in India, Vol.I, S.N. Mukherjee (ed.), S. Chand and Co., New Delhi, 1978.

- Krishna, K. et al., Investigation into the Use of Mathematics Text-Book as a Tool of Teaching, SCERT Haryana, Fourth Survey of Research in Education, Vol.I, M.B. Buch (ed.), The Publication Department, NCERT, 1991.
- Krishan, K., A Critical Comparative Study of Secondary School Curricula of Kerala and Tamil Nadu, 1981, Fourth Survey of Research in Education, Vol.I, M.B. Buch (ed.), NCERT, The Publication Department, NCERT, 1991.
- Kumar, K. et al., Motivation of B.T. Correspondence Course Students' NCERT 1986, Fourth Survey of Research in Education, M.B. Buch (ed.), NCERT, The Publication Department, New Delhi, 1991.
- Lalhuluna, F., A Study of the Programmes of SCERT in Mizoram. M.A. Dissertation, NEHU, Shillong, 1983.
- Lalbiaka, A., A Comparative Study of the Teacher Attitudes Among the Trained and Untrained Teachers in Mizoram, M.Ed. Dissertation, NEHU, Mizoram Campus, Aizawl, 1982.
- Lambhate, M.V., Development of Instructional Materials for Teachers Science in Class-VI in Rural Area of M.P. Fourth Survey of Research in Education, Vol.I, M.B. Buch (ed.), The Publication Department, NCERT, New Delhi, 1991.

- Linden, P.A.W., A Follow-up Study of the Graduates of the Competency Based Teacher Education Programme in the University without Walls at Loreto Height College, Dissertation Abstracts International, Vol.47, No.60, December 1986.
- Mama, K., A Study of the Impact of In-service Education in the State of Maharashtra, Second Survey of Research in Education, M.B. Buch (ed.), M.S. University of Baroda, Baroda, 1979.
- MBOSE, Report of the Work done in the Field of Curriculum (Unpublished), MBOSE, Tura, 1976.
- MBOSE, Meghalaya Board of School Education, Courses of Studies and List of Text-Books for High School Leaving Certificate Examination, MBOSE, Tura 1976.
- MBOSE, Meghalaya Board of School Education, Courses of Studies and List of Text-Books for High School Leaving Certificate Examination, MBOSE, Tura 1987.
- MBOSE, New Curriculum and Syllabi for Secondary Schools Classes VIII to X, MBOSE, Tura, 1990.
- MBOSE, New Curriculum and Syllabi for Upper Primary Schools Classes V to VII, MBOSE, Tura, 1990.
- MBOSE, New Curriculum and Syllabi for Lower Primary Schools Classes I to IV, MBOSE, Tura, 1990.

- Mero, N., A Study on Co-Curricular Activities in the School of Shillong, Shillong Centenary Celebration - A Souvenir, 1987.
- Mohammad, M., A Study of the Effectiveness of Methods of Teaching Mathematics in Developing Mathematical Creativity - Third Survey of Research in Education, M.B. Buch (ed.), The Publication Department, NCERT New Delhi-16, 1987.
- Mukherjee, S.N., Education of Teachers in India, Vol.I, S. Chand and Co., Ram Nagar, New Delhi-1, 1968.
- Mukhopadhyay et al., A Study of Selected District Institute of Education Haryana, NIEPA Research Studies, N. Malhotra (ed.), NIEPA, New Delhi, 1994.
- Nath, B.K., Education in Assam, NCERT, Office of the Field Adviser, Shillong, Assam, 1971.
- Nair, K.S., A Study of the Concept of Standards in English through an Analysis of Textbooks prepared for Secondary Schools Pupils in Kerala State, Second Survey of Research in Education. M.B. Buch (ed.), M.S. University of Baroda, Baroda, 1979.
- NCERT, Plan and Action and Major Thrust of Primary Education Curriculum Renewal (PECR) Project Primary Curriculum Development Cell, NCERT, New Delhi-16, 1983-86.

- NCERT, Minimum Learning Continuum, PEER Cell, NCERT, Publication No.3, 1979, New Delhi.
- NCERT, Report of the National Level Meeting of PCDC, NCERT, 1979.
- NCERT, National Council of Teacher Education - A Curriculum Framework, DPESE, NCERT New Delhi, 1978).
- NCERT, National Curriculum Framework, NCERT New Delhi, 1977
- NCERT, Teacher Today/Naya Shikshak, Jan-March 1986.
- NCERT, Sixth All-India Educational Survey, Provisional Statistics, Publication Department, NCERT New Delhi-16, 1996.
- NCERT, Fifth All-India Educational Survey Selected Statistics, Publication Department, NCERT, New Delhi-16, 1989.
- NIEPA, Educational Administration in Meghalaya - A Survey Report, NIEPA, Sri Aurobindo Marg, New Delhi, p.11.
- NIEPA, NIEPA Research Studies - An Annotated Bibliography. N. Malhotra (ed.), NIEPA, Sri Aurobindo Marg, New Delhi, 1994.
- Norman, J.B. and Copeland, W.D., A Training Programme for Supervisors - Anatomy of an Educational Development, University of California - Santa Barbara, The Journal of Educational Research, Vol.68, Nov. 1974, No.3.

- Pandey, B.N. et al., A decade of State Institute of Education (SIE), NCERT, New Delhi, Third Survey of Research in Education, M.B. Buch (ed.), The Publication Department, NCERT, New Delhi, 1987.
- Pattabhiram, G., An Evaluation of Nationalised Text-Books for Higher Classes in Social Studies in Secondary Schools of Andhra Pradesh. Second Survey of Research in Education, M.B. Buch (ed.), M.S. University of Baroda, Baroda, 1979.
- Pendse, V.G., A Critical Study of the Curriculum of Physical Education for Girls in Secondary Schools with Suggestion for Improvement in Poona City Area. Unpublished M.Ed. Thesis, Dissertation of SNDT Women University of Bombay, 1960.
- Pillai, N.K., An Investigation into the Problems of the Contents and Scope of Curriculum in Social Studies for Secondary Schools in Kerala. M.Ed. Dissertation, Kerala 1959.
- Pillai, N.P., Training of Research Workers, Journal of Educational Research and Extension, Vol.III, No.4, April 1967.
- Ponkshe, D.B., A Critical Evaluation of Geography Text-Book, College of Education, Dhule, 1972. Third Survey of Research in Education, M.B. Buch (ed.), The Publication Unit, NCERT, New Delhi, 1987.

- Rajalakhshmi, B., An Analysis of English Reader Prescribed for Class VIII of High School of Shillong, M.A. Dissertation (unpublished), NEHU, 1985.
- Randolph, G., A Programme of Science Preparation for Elementary Teachers, Dissertation Abstracts, Vol.25, Sept-Oct. 1964, Nos.3-4.
- Rao, G.S.S., The State Institute of Education in Education of Teachers in India, Vol.I, S.N. Mukherjee (ed.), S. Chand and Co. Ram Nagar, New Delhi-1, 1968.
- Rastogi, K.G. et al., Preparation and Evaluation of Textbooks in Mother Tongue - Principles and Procedure, NCERT New Delhi, M.B. Buch (ed.), Second Survey of Research, M.S. University of Baroda, Baroda 19.
- Resool, G. and Verma, K.K., Evaluation Study of District Institute of Education in Jammu and Kashmir State, 1988, NIEPA Research Studies, N. Malhotra (ed.), NIEPA, New Delhi, 1994.
- Saiyidain, K.G., The Fourth Indian Year Book of Education - Secondary Education, NCERT, The Publication Unit, New Delhi, 1973.
- Sana, A.F., A Critical Evaluation of Nationalised Text-Books for Classes VI to X of Haryana, Ph.D. Education 1985 in M.B. Buch (ed.), Fourth Survey of Research in Education, Vol.I, NCERT, The Publication Department, New Delhi, 1991.

- Sangma, H., A Study on the Use of Audio-Visual Aids in the Schools of Shillong, Shillong Centenary Celebration - A Souvenir, Shillong, 1987.
- SCERT, State Council of Educational Research and Training, Meghalaya, Shillong, 1976-77, Vol.I, No.1.
- SCERT, SCERT Newsletter 1976-77 (unpublished), Meghalaya, Shillong.
- SCERT, Report of the Educational Technology Cell SCERT. Meghalaya, Shillong, 1978-79.
- SCERT, Report of SCERT, 1991-92, Government of Meghalaya, Shillong.
- SCERT, Seminar papers on the standardisation of Khasi Writing, SCERT, Directorate of Education, 1994.
- SCERT, Statistical Analysis of School Education in Meghalaya 1976-77, Government of Meghalaya, Shillong.
- SCERT, Report of SCERT, 1981-82, Government of Meghalaya, Shillong.
- SCERT, School Mapping - A Sample of the Location of Schools Vol.I, SCERT, Meghalaya, Shillong, 1981.
- SCERT, School Mapping - A Sample of the Location of Schools Vol.II, SCERT, Meghalaya, Shillong, 1982.
- SCERT, Report of the SCERT 1980, SCERT, Meghalaya, Shillong.
- SCERT, Primary Education Curriculum Renewal (PECR), A Sample Survey Report, 1980, SCERT, Meghalaya, Shillong.

SCERT, A Consolidated Report, SCERT, Meghalaya, Shillong, 1988-89.

SCERT, A Report of the Survey and Seminars on Wastage and Stagnation at Primary Level, 1985, SCERT, Meghalaya, Shillong.

SCERT, A Statistical Study on Wastage and Stagnation at Primary Level in Meghalaya State - A Report, SCERT, Meghalaya, Shillong, 1990.

SCERT, A Need-Assessment Study for Educational TV (ETV) 1986-87, E.T. Cell, SCERT, Meghalaya, Shillong.

SCERT, A Brief Report of the Feedback Studies of Educational Broadcasts - ETC Publication No.24, ETC, SCERT, Meghalaya, Shillong, 1990.

SCERT, A Comparative Study of the Organisational Climate and Teacher Morale - A Report 1990, Government of Meghalaya, Shillong.

SCERT, Analysis of the Qualitative and Quantitative Performance of the different Schools in Meghalaya in the HSLC Examination 1980-83, SCERT, Meghalaya, Shillong.

SCERT, Analysis of the Qualitative and Quantitative Performance of the different Schools in Meghalaya in the HSLC Examination, 1984, SCERT, Meghalaya, Shillong.

SCERT, Report of the UNICEF Projects, SCERT, 1980.

SCERT, Report of the SCERT for Advisory Council Meeting,  
1982.

SCERT, Report of the UNICEF Projects 1992, SCERT, Meghalaya.

SCERT, Proceedings of the Meetings - Report of the SCERT,  
1983, SCERT, Shillong.

SCERT, Report of the Activities of the SCERT Meghalaya Since  
Its Inception, 1992.

SCERT, Report of the Surveys for the Use of Educational T.V.  
and on Teaching Aids. E.T. Cell Publication, No.9.

SCERT, A Manual on Child-to-Child Activities, E.T. Cell  
Publication, No.26, Shillong, 1992.

SCERT, A Report of the Programmes and Activities of the  
Educational Technology Cell, SCERT for the year  
1978-1990, E.T. Cell Publication, No.25.

SCERT, Ka Kot Iarap ia ki Nonqhikai ba Hikai ha ki Skul ba  
tang Uwei u Nonqhikai, Shillong, 1980.

SCERT, Revised Curriculum for School Education in Meghalaya  
Classes VI-X, Vol.I, Language 1987.

SCERT, Revised Curriculum for School Education in Meghalaya  
Classes VI-X Social Studies, Health & Physical  
Education, Work Experience Creative Expression,  
1987.

SCERT, Revised Curriculum for School Education in Meghalaya,  
Classes-VI-X, 1987.

- SCERT, Syllabus for Primary School in Meghalaya (Classes I-V), 1988.
- SCERT, District Development Plans of Education (East and West Garo Hills), 1980.
- SCERT, Hints on Teaching of History, SCERT, Meghalaya, 1978.
- SCERT, Seminar on the History of Meghalaya, Government of Meghalaya, Shillong, 1980.
- SCERT, Training-cum-Workshop in Library Science for School Teachers, SCERT, Meghalaya, Shillong, 1980.
- SCERT, Report on the Workshop for Developing Model Question Papers in History 5-11 April, 1982.
- SCERT, Hints on the Teaching of Mathematics (Algebra), Vol.I, No.1, 1979.
- SCERT, Proceeding of Seminar-cum-Workshop on Teaching of Mathematics and Science at the High School Stage, 1982.
- SCERT, Guide to the Teaching of Mathematics at the High School Stage, Vol.I & II, Algebra, 1984.
- SCERT, A Handbook on Inspection and Supervision for Inspecting Officers of Meghalaya, Shillong, 1993.
- SCERT, Correct English for High Schools in Meghalaya, Shillong, 1982.
- SCERT, Report of the First Career Masters Training Course, Government of Meghalaya, Shillong, 1978.
- SCERT, Educational and Vocational Charts, Shillong, 1983.

- SCERT, Handbook on Educational and Vocational Guidance, Shillong, 1982.
- SCERT, Be an Engineer, SCERT, Shillong, 1982-83.
- SCERT, The Educational and Vocational Survey Report, Shillong, 1984.
- SCERT, Careers for High School Leavers and Below, Shillong, 1985.
- SCERT, Handbook for Demonstration Experiments in Science, Shillong, 1986.
- SCERT, A Text-Book on Science for Class VII, Shillong, 1986.
- SCERT, Supplementary Reading Materials in Science for High School, Vol.I, 1982.
- SCERT, A Guidebook for Teachers on Science, Shillong, 1979.
- SCERT, Model Textbook in Science for Class X, Shillong, 1986.
- SCERT, Setting Better Question Model Question and Question Papers in Mathematics and Elementary Scientific Knowledge for High School Stage, SCERT, Meghalaya, Shillong, 1982.
- SCERT, Model Textbook in Science for Class IX (Based on revised syllabus prepared by SCERT), SCERT, Meghalaya, Shillong, 1982.
- SCERT, A Textbook on Science for Class VIII, SCERT, Meghalaya, Shillong, 1986.

SCERT (AP), Evaluation of In-service Training of Secondary Teachers in Science Teaching Centres attached to College of Education in Content and Methodology (1980), Fourth Survey of Research Education, Vol.II, M.B. Buch (ed.), The Publication Department, NCERT, New Delhi, 1991.

SCERT (AP), Evaluation of Textbooks in EVS of Classes III and V based on Revised Curriculum in Science 1980, Fourth Survey of Research in Education, Vol.I, NCERT, The Publication Department, NCERT, New Delhi, 1991.

SCERT (AP), Evaluation of UNICEF Aided Science and Mathematics Pilot Project Scheme for Classes VI to VIII, 1981, Fourth Survey of Research in Education, NCERT, The Publication Department, NCERT, New Delhi, 1991.

Schulman, B.R., The Role of University Extension in Meeting the In-service Education Needs of School Districts, Dissertation Abstracts, Vol.25, Sept.-Oct. 1964, No.3 & 4.

Sharma, A.K. and L.C. Singh, In-Service Education, NCTE Bulletin, NCTE Secretariat, Department of Teacher Education and Elementary Education, NCERT, New Delhi, September-December 1989, Vol.I, No.2 and 3.

Sharma, K.C., Impact of the SIE, Jammu on the School Education Planning Monitoring and Evaluation Unit, SIE, Jammu, 1988.

Sharma, U.S., A Critical Study of Compulsory Courses in the Theory of Education offered by Indian Universities for B.Ed./B.T. Degrees, Second Survey of Research in Education, M.S. University of Baroda, Baroda, 1979.

SIE Chandigarh, A Case Study of Eleventh Training in the State of Chandigarh, Fourth Survey of Research in Education, Vol.II, M.B. Buch (ed.), The Publication Department, NCERT, New Delhi, 1991.

SIE Gujarat, An Intensive Improvement Programme on School in Four Districts of Gujarat SIE. Fourth Survey of Research in Education, Vol.II, M.B. Buch (ed.), The Publication Department, NCERT, New Delhi, 1991.

Singh, R.P., Elementary Teacher Education New Direction, NCTE Bulletin, Vol. II, No. 2 & 3, NCTE Secretariat DTESE and ES, NCERT, New Delhi, June-Sept., 1990.

Singh, R.P., The Curriculum of English in Class X, M.Ed. Dissertation, Allahabad 1957, Third Indian Year Book - Educational Research, NCERT, The Publication Unit, NCERT, New Delhi, 1968.

- Singh, U.S., Development of a Curriculum in Science for Secondary Schools in the State of Maharashtra, Bombay University, 1977, Second Survey of Research in Education, M.B. Buch (ed.), M.S. University of Baroda, Baroda, 1979.
- Sinha, D.K., Evaluation of Curricular Materials in New Mathematics, 1976, NCERT, Second Survey of Research in Education, Buch (ed.), M.S. University of Baroda, Baroda, 1979.
- Srivastava, N.P., Teaching Social Studies in Secondary Schools of Uttar Pradesh, Ph.D. Education, Lucknow University, Second Survey of Research in Education, M.B. Buch (ed.), M.S. University of Baroda, Baroda, 1979.
- Talukdar, A.H.V. (1993), Problems of Teaching and Learning of Integrated Science in Burno State of Nigeria, The Educational Review, XCIX(3), 1993.
- Tharwani, T.C., A Critical Study of the Prescribed Text-Books in Hindi Lower Level for Standard V to X in Maharashtra State with a View to their Improvement, Fourth Survey of Research in Education, M.B. Buch (ed.), The Publication Department, NCERT, New Delhi, 1991.
- Travers, R.M.W., Second Handbook of Research on Teaching, Chicago R. and McNally College Publishing Company.

UNESCO, Bulletin of the UNESCO, Regional Office for Education in Asia and the Pacific, UNESCO in Asia and the Pacific, Documentation Centre of the UNESCO, Bangkok, 1986, p.59.

UNICEF, A Study on Assessment of Application of UNICEF Policies in Education in Pakistan, UNICEF, Islamabad, September 1979.

UNICEF, UNICEF Cooperation in the In-service Educational Training Institute in Sudan, United Nations Economic and Social Council, UNICEF Executive Board Session, 1980.

UNICEF, Indepth Evaluation Study of the In-Service Teaching Training Project in Jordan. The Hashemite Kingdom of Jordan, Ministry of Education and UNICEF, September, 1979.

Verma, V.P., Method and Means of Teaching Hindi. Fourth Survey of Research in Education, Vol.I, M.B. Buch (ed.), NCERT, The Publication Department, NCERT, New Delhi, 1991.

Vimala, D.F., Strategies for Developing Critical Reading Abilities in Higher Students in English, Ph.D. Education Madras, Fourth Survey of Research in Education, Vol.I, M.B. Buch (ed.), NCERT, The Publication Department, NCERT, New Delhi, 1991.

## APPENDICES

### Appendix

- I : Government Notification
- II : A Questionnaire for In-Service Training in Science and Mathematics
- III : Questionnaire for Teachers in Training-cum-Workshop on SUPW
- IV : Training Evaluation
- V : Questionnaire for District Officers/Principals/Heads of Secondary Schools
- VI : Interview Schedule for Academic Officers
- VII : List of Instructional Materials Developed Under Project-2 : Primary Education Curriculum Renewal (PECR)
- VIII : List of the Learning Materials Developed and Printed under Project-5 - Comprehensive Access to Primary Education (CAPE)

Appendix-I

GOVERNMENT OF MEGHALAYA

EDUCATION DEPARTMENT

ORDERS BY THE GOVERNOR

NOTIFICATION

Dated Shillong, the 28th June, 1976.

No.EDN.13/75/23:- The Governor of Meghalaya is pleased to establish the State Council of Educational Research & Training with headquarters at Shillong with effect from the date of issue of this Notification. The Council will function as an Academic Wing under the Directorate of Public Instruction, Meghalaya and it will have a Planning and Advisory Committee for formulation and implementation of various schemes and projects.

(J.M.Phira)

Secretary to the Govt. of Meghalaya,  
Education Department.

.....

Memo No.EDN.13/75/23-A Dt. Shillong, the 28th June, 1976.

Copy to:-

1. The Director of Public Instruction, Meghalaya, Shillong. He is directed to function as a Director of the S.C.E.R.T. pending appointment of a full-fledged Director. Appointment of staff for the Council is being taken up by Government.
2. P.S. to Minister, Education for information of Minister.
3. P.A. to Minister of State, Education for information of Minister of State.
4. Personnel Department for information.
5. Finance Department for information.
6. Superintendent, Government Press for favour of publication in the Meghalaya Gazette.

By order etc.,

Secretary to the Govt. of Meghalaya,  
Education Department.

GOVERNMENT OF MEGHALAYA

EDUCATION DEPARTMENT

ORDERS BY THE GOVERNOR

NOTIFICATION

Dated Shillong, the 28th June, 1976.

No.EDN.13/75/23:- The Governor of Meghalaya is pleased to constitute the Planning and Advisory Committee with the following members to advise the State Council of Educational Research and Training in formulation and implementation of various schemes and projects.:-

1. Minister of Education - Chairman.
2. Minister of State, Education - Vice-Chairman.
3. Director of Public Instruction- Member Secretary.
4. Director, S.C.E.R.T. - Member Joint Secretary.
5. Secretary to the Government of Meghalaya, Education Department - Member.
6. Secretary, Meghalaya Board of School Education - Member.
7. One Representative from N.C.E.R.T. - Member.
8. One Representative from N.E.H.U.- Member.
9. Shri B.S.Sangma, Inspector of Schools, Garo Hills - Member.
10. Rev. Mother Anne, Principal, St. Mary's College, Shillong. - Member.
11. Smti Gracefield Marak, Headmistress, Christian Girls' High School, Tura, Garo Hills. - Member.
12. Rev. Fr. A. Joseph, Principal, St. Anthony's College, Shillong. - Member.
13. Mrs Q. Rynjah, Headmistress, Pine Mount School, Shillong. - Member.
14. Miss M. Khongwir, Headmistress, K.J.P. Girls' High School, Shillong. - Member.
15. Shri Akbar Khonglah, Headmaster, Sohkhah Govt. M.E.School. - Member.
16. Mrs E.N.Shullai, Inspector of Schools, Khasi Hills, Shillong. - Member.

This Committee will remain in office for the period of one year for the present with effect from the date of issue of this Notification.

(J.M.Phira)

Secretary to the Govt. of Meghalaya,  
Education Department.

Memo No.EDN.13/75/23-A

.....  
Dt. Shillong, the 28th June, 1976.

Copy to:-

1. The Director of Public Instruction, Meghalaya, Shillong.
2. P.S. to Minister, Education for information of Minister.
3. P.A. to Minister of State, Education for information of Minister of State.
4. Personnel Department for information.
5. Finance Department for information.
6. Superintendent, Government Press for favour of publication in the Meghalaya Gazette.
7. Vice-Chancellor, North Eastern Hill University, Shillong.
8. All Members concerned.

By order etc.,

Secretary to the Govt. of Meghalaya,  
Education Department.

Appendix-II

A Questionnaire for In-service Training in  
Science and Mathematics

1. Personal Data

(a) Name of the respondent \_\_\_\_\_

(b) Name of the School and Address \_\_\_\_\_

(c) Type of School (whether Govt/ \_\_\_\_\_  
Private, etc.)

(d) Rural/Urban \_\_\_\_\_

(e) Academic Qualification

(i) HSLC

(ii) FUC

(iii) BA/BSc

(iv) MA/MSc

(v) BEd/BT

(vi) Any other ( )

2. (a) Have you attended SCERT Training? Yes/No

(b) If yes, did you find the duration adequate?  
Yes ( ) No ( )

(c) If no, why did you consider it inadequate?

(i) Too short - Yes/No

3. (a) Were the objectives of the Training Course clearly  
stated? Yes/No

(b) How far these objectives been achieved?  
To a great extent ( )  
To some extent ( ) Not at all ( )

4. (a) Who were the Resource Persons for the Training?

(i) School Teacher

(ii) College Teacher

(iii) SCERT Personnel

(b) Were the Resource Persons well-trained?

Yes ( ) No ( )

(c) If No, what measures would you suggest?

(i) The Resource Persons should be drawn from SCERT.

(ii) The Resource Persons should be thorough with the subject.

(iii) Any other (please specify)

5. What were the contents of the Training?

(i) Syllabus prescribed in the School. Yes/No

(ii) Discussion of methods of teaching. Yes/No

(iii) Demonstration/Experiment Yes/No

Did the content of the Training Course take care of the curricular changes? Yes/No

If yes, tick the appropriate ones

(i) Minimum levels of learning were discussed at length ( )

(ii) Environmental awareness ( )

(iii) Child-centred education and activity-based teaching ( )

(iv) Adoption of effective teaching methods and instructional classroom strategies. ( )

6. (a) What were the method of teaching used in the training?

(i) Lecture

(ii) Demonstration

(iii) Lecture-cum-Demonstration

(iv) Activity-based

(b) Were the methods used effective? Yes ( ) No ( )

7. To what extent were your expectation met from the training?

To a great extent ( ) To Some extent ( )

Not at all ( )

8. What measures would you suggest to make the Training Programme more relevant?

Appendix-III

Questionnaire for Teachers in Training-cum-Workshop on SUPW

1. (a) Name of the teacher:  
(b) Sex: Male ( ) Female ( )  
(c) Educational qualification:  
(d) Experience:  
(e) Name of the School and address:  
(f) Location of the School: Rural ( ) Urban ( )
2. (a) Has Socially Useful Productive Work (SUPW) been introduced in your School? Yes ( ) No ( )  
(b) If yes, how many classes do you have in a week?  
(a) Once a week ( ) (b) Twice a week ( )  
(c) Any other. Please specify ( )
3. Do you think the number of classes you have is adequate for the successful implementation of SUPW in your school?
4. How many times you have attended a training in SUPW?  
Once ( ) Twice ( )
5. How has the training helped you in understanding the following points? (Please specify).  
(a) Meaning of SUPW \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
(b) Aim of SUPW \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(c) What are the objectives of SUPW?

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

(iii) \_\_\_\_\_

(iv) \_\_\_\_\_

(v) \_\_\_\_\_

(d) What are the main work areas of SUPW? Please list below.

(e) What are the types of programmes or activities to be carried out in the School? Please name.

6. What are the methods of teaching used in this training?

(a)

(b)

(c)

(d)

7. What are the skills given/learnt during this training programme? Please list them below:

(a)

(b)

(c)

(d)

(e)

8. Do you think your active participation in these activities will help you in the implementation of SUPW in your School?

Yes ( ) No ( )

If yes, to what extent and how? (Please specify)  
Great extent ( ) Some extent ( ) Not at all ( )

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9. What method/medium do/will you use in teaching SUPW? Please tick.

- (a) Lecture ( )
- (b) Activity-based ( )
- (c) Both of the above ( )
- (d) Any other (please specify).

10. Do you think that by conducting SUPW activities this will help in development of the total personality of the child?

Yes ( ) No ( )

If yes, what areas do you give more importance for this purpose at the Upper Primary Level? (Please tick).

- (a) Knowledge and understanding
- (b) Development of attitudes
- (c) Development of skills
- (d) Any other (Please specify).

11. Do you find these methods effective? Yes/No  
If no, what measures would you suggest to make it more effective?

- (a) \_\_\_\_\_
- (b) \_\_\_\_\_
- (c) \_\_\_\_\_
- (d) \_\_\_\_\_

12. Do you evaluate SUPW? Yes ( ) No ( )  
If yes, how do you do it?
- (a) At the end of the activity.
  - (b) At certain time during the course of the activity.
  - (c) Throughout the course of the activity.
13. What are the techniques of evaluation?
- (a) Written examination
  - (b) Oral question
  - (c) Observation
  - (d) Record card.
14. How do you evaluate the children's work in your school?
- (a) By giving marks ( )
  - (b) By giving grades ( )
  - (c) Any other. (Please specify)
15. What are the general difficulties in implementing the Programme?
- (a) \_\_\_\_\_
  - (b) \_\_\_\_\_
  - (c) \_\_\_\_\_
  - (d) \_\_\_\_\_
16. Please give your suggestions to help solve these problems.

Appendix-IV

Training Evaluation

1. Name of the programme:

2. Duration:

3. Organiser:

4. Objectives

1. To provide competency in the use of operation Blackboard retention.

2. To adopt Minimum Levels of Learning strategy to increase retention.

3. Activity-based learning through practical demonstration.

1. How far the objectives stated above have been achieved? (Please tick in the appropriate box)

A = To a great extent, B = To some extent, C = Partly, N = Not at all.

A

B

C

D

--	--	--	--

2. To what extent were your expectations from the course met?

A

B

C

D

--	--	--	--

3. Was the duration of the course

Adequate ( ) Too long ( ) Too short ( )

If not adequate, what should be the duration in your opinion?

\_\_\_\_\_

4. Did you find the content of the training relevant?  
Yes ( ) No ( )

If no, what should be covered during the training? \_\_\_\_\_

\_\_\_\_\_

5. What topic in your opinion should be reduced? \_\_\_\_\_

\_\_\_\_\_

6. What topics in your opinion could be increased/  
added?

\_\_\_\_\_

\_\_\_\_\_

7. Was the time allowed for individual sessions  
adequate? Yes ( ) No ( )

If no, give reasons \_\_\_\_\_

\_\_\_\_\_

8. What are the methods employed in the training  
programme. (Put a tick in the appropriate box)

(i) Lecture ( )

(ii) Demonstration ( )

(iii) Lecture-cum-demonstration ( )

(iv) Activity-based ( )

(v) Any other (Please specify) ( )

9. Please give ratings to the methods employed in the programme (Put a tick in the appropriate box)

	Very effective	Effective	Not effective
(i)			
(ii)			
(iii)			
(iv)			
(v)			

10. Please give your remarks or suggestions to improve the effectiveness of the course.

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5. Have you visited any schools where teachers with such training work? Yes/No.
  
6. In your opinion, which programme(s) should be conducted in our state more intensively?
  
7. In your opinion, which programme(s) would you like the SCERT to consider in the next few years.
  
8. Please give your suggestions for improving the programmes of the SCERT and their organisation by the SCERT in the coming years. Please give details.

Appendix-VI

Interview Schedule for Academic Officers

1. (a) What are the types of programmes/activities organised by you in your department?

Sl. No.	Name of the programme	Objectives	Subject-area covered
1	2	3	5
1.			
2.			
3.			

Duration	For whom	No. of participants	Venue	When held	Remarks
5	6	7	8	9	10
1.					
2.					
3.					

- (b) Do you conduct it regularly? Yes/No  
If yes, how often - Quarterly, Halfyearly and annually

2. How do you plan your programme?

- (i) On your own ( )  
(ii) In consultation with the District Officers ( )  
(iii) In consultation with the school teachers ( )  
(iv) On the suggestion of other<sup>o</sup> agencies/organisation ( )

3. What are the criteria for selection of teachers to the programme? (Please give details)
4. Who are generally the Resource Persons?
5. Are the Resource Persons given Orientation before the programme begins?
6. Do you prepare any training materials before starting the programme?
7. What types of teaching aids or materials do you use to generally supplement your programme?
8. Are the participants given any certificate at the completion of the training?
9. Does the training schedule include collection of feedbacks of participants and resource persons?

10. How do you evaluate the programme?
  
11. Are there any provision for follow-up evaluation of participants and their activities?
  
12. Do you provide any follow-up service/support to participants to help them in the field application of training benefits?
  
13. Had the research activities/training programmes/extension services carried so far been successful in achieving their objectives? (Please indicate in brief)
  
14. As an academic officer in the SCERT, please indicate the problems that you faced in carrying out your duties as regards to the following:
  - (a) Administrative problems:
  
  - (b) Resources -
    - (i) Man-power resources:
    - (ii) Financial resources:
  - (c) Academic problem:
  - (d) Any other.
  
15. Please give concrete suggestions to help solve these problems.

Appendix-VII

List of Instructional Materials at the Primary Level  
Developed under Project-2  
Primary Education Curriculum Renewal (PECR)

The materials are both in Khasi and Garo

Class-I

A. Language

- i) Ka Umpohliaw Jingtip Kitab-I (Khasi text)
- ii) Ka Kotiarap ia ki Nonghikai na ka Bynta ka Kot "Ka Umpohliaw Jingtip Kitab-I" (Guidebook).
- iii) Ka Kot Hikai Thoh Klas-I (Khasi Transcription)
  - i) Poraini Kitab-I - Class-I (Garo text)
  - ii) Seaniko A'bachengani Class-I (Garo Work Book)

B. Mathematics

Ka Kot Jingkhein na Bynta ki Skul Primary Book-I (Khasi Text-cum-Guide).

- i) Primary Schoolrangi Hisab Kaani Kitab-I (Garo Text-cum-Guide).

C. Environmental Studies (EVS)

Ka Kot Iarap ia ki Nonghikai ha ka Jingpule Shaphang kiei kiei kiba ker Tawiar Iangi (EVS) Klass I-II (Khasi Guide).

Samtangtango Dongiparangi Gimin Poraianio Skigipa Dilani - Class I aro II Na (Garo-Guide).

D. Socially Useful Productive Work (SUPW)

- Ka Kot Iarap ia ki Nonghikai ha ka Socially Useful Productive Work, Klas-I & II.
- Class-I Aro II Na Manderangna Jakkatogipa Jakni Kamo Skigipako.

E. Creative Expression (CE)

- Ka Kot Iarap ia ki Nonghikai ban Sei bad Pynpaw Pyrthei ia ki Sap bad Jingtbit Jong Ki Khyannah ha Ki Klas-I & II.
- Gitai Dakna tarina Changa Sapaniko Mesokaniko Skie Ongipa Skigiparangna Dakchakgipa Kitab I & II.

Class II

A. Language

Ka Kot Pule Khasi Klas III (Text)

Poraini Kitab Class III

Ka Kot Iarap ia ki Nonghikai ha ka Khasi

Poraini Kitab ko Paraini Ga'mano Klas III

Text-cum-Work Book in English for Class III

Teachers Guide for Teaching English Class III

B. Mathematics

Ka Kot Jingkhein

Hisab Ka'ani Kitab Book III

Ka Kot Pyrshang ha ka Jingkhein

Hisab Class-III Ka'gnirang

Ka Kot Iarap ia ka Jingkhein

C. Environmental Studies (EVS)

Ka Kotpule ia Kiei Kiei Kiba don Ha Sawdong Jong Ngi

Samtangko Dongiparangi Gimin Poraiano Class III

Ka Kotpule ha ka Social Studies Class III

Social Studies Poraiano Class III.

E. SUPW

Ka Kot Iarap ia ki Nonghikai ha ka SUPW na ka Bynta Ka  
Klass III

Class III Na Manderangna Jakkaltogipa Jakni Kamo  
Skigipako

F. Creative Expression

Ka Kot Iarap ia ki Nonghikai ban Sei bad Pynpaw Pyrthei  
ia Ki Sap bad Jingtbit Jong Ki Khynnah Klass III

Gital Dakna Tarina Changa Sapaniko Skie on'gipa  
skigiparangna Dakhakgipa Kitab.

Class IV

A. Language

Ka Kotpule Khasi Klas IV

Poraini Ki'tab Book IV

Ka Kot Iarap ia ki Nonghikai ia ka Khasi

Skigipako Dilani Poraini Kitab IV

Ka Kot Jingpyrshang ia ka Khasi Klas IV

Seaniko Ranta Ka'an<sup>2</sup>i Class IV<sup>2</sup>

A Text-Book in English for Class IV

A Work Book English for Class IV.

B. Mathematics

Ka Kot Jingkhein na Bynta ki Skul Primary Book IV  
Hisab Ka'ani Kitab Book IV.

C. Social Studies

Ka Kotpule ia ka Social Studies Klas IV  
Social Studies ko Skiano Skigipako Dakchakgipa Kitab IV  
Ka Kotiarap ia ki Nonghikai na ka Bynta ka Social  
Studies Klas IV.

D. SUPW

Ka Kotiarap ia ki Nonghikai ha ka SUPW Klas IV  
Class IV Na Maderang Na Jakaltogipa Jakni Kamo  
Skigipako Dilani.

E. Creative Expression

Ka Kot Iarap ia ki Nonghikai ban Sei bad Pynpaw Fyrthei  
ia ki Sap bad Jingtbit Jongki Khyannah ha Klas IV.  
Class-IV Gital Dakna Tarna Changa Sapaniko Mesokaniko  
Skie On'gipa Skigiparangna Dakchakgipa Kitab IV.

Class V

A. Language

Ka Kot Fule ia ka Khasi ha ka Class V  
Poraini Kitab Book V  
Ka Kot iarap ia ki nonghikai ha ka Khasi  
Skigipako Dilani Poraini Kitab V Ko Skina

B. Mathematics

Ka Kot Jingkhein na Bynta ki Skul Primary Book V  
Hisab Ka'ani Kitab Book V

C. Social Studies

Ka Kotpule ia ka Social Studies ha Klas V  
Social Ko Skiano Skipaka Dakchagipa Kitab V

D. SUPW

Ka Kot Iarap ia ki Nonghikai ha ka SUPW Klas V  
Class V Na Maderang Na Jakkatogipa Jakni Kamo Skigipako  
Dilani.

E. Creative Expression

Ka Kot Iarap ia ki Nonghikai ban Sei bad Pynpaw Fyrthei  
ia ki Sap bad ki Jingtbit Jong ki Khynnah.  
Class V Na Gital Dakna Change Sapaniko Foraikania  
Dilani.

Appendix VIII

List of the Learning Materials Printed under Project V - CAPE

Sl.No.	Title of the Module	No. of Capsules
1.	LET US LEARN TO READ AND WRITE	1 Module consisting of 9 Capsules
2.	a) LET US LEARN NUMBERS UPTO 9 AND THEIR ADDITION AND SUBTRACTION	3-1 1 Module consisting of 6 Capsules
	b) LET US LEARN NUMBERS UPTO 2 AND THEIR ADDITION AND SUBTRACTION	3-2 1 Module consisting of 4 Capsules
	c) LET US LEARN NUMBERS UPTO 100 AND MATHEMATICAL OPERATIONS	3-3 1 Module consisting of 7 Capsules
	d) LET US LEARN NUMBERS UPTO ONE LAC. MATHEMATICAL OPERATIONS & PROPERTIES OF NUMBERS	3-4 1 Module consisting of 5 Capsules
3.	BEE KEEPING AS AN EXTRA SOURCE OF INCOME	Four(4) 8 - 1 - 1 8 - 1 - 2 8 - 1 - 3 8 - 1 - 4
4.	BEWARE OF SKIN DISEASES	Two(2) 17 - 2 - 1 17 - 2 - 2
5.	BEWARE OF MOSQUITOES	Three(3) 19 - 1 - 1 19 - 1 - 2
6.	EVIL EFFECTS OF DRINKING LIQUOR	Three(3) 23 - 1 - 1 23 - 1 - 2

Sl.No.	Title of the Module	No. of Capsules
7.	LET US KEEP OUR VILLAGE CLEAN	Three(3) 2 - 4 - 1 2 - 4 - 2 2 - 4 - 3
8.	A BALANCED DIET	18 - 1 - 1 18 - 1 - 2
9.	CONSERVATION OF FORESTS	25 - 1 - 1 25 - 1 - 2
10.	WATER PURIFICATION	21 - 1 - 1

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