CENTRALLY SPONSORED SCHEME OF TEACHER EDUCATION AND TOTAL QUALITY MANAGEMENT OF TEACHER EDUCATION INSTITUTIONS IN MIZORAM: AN ANALYTICAL STUDY

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

H. LALHRUAITLUANGA

MZU REGISTRATION: 2238 of 2003-04

Ph. D. REGISTRATION: MZU/Ph.D./1216 of 27.07.2018

DEPARTMENT OF EDUCATION

SCHOOL OF EDUCATION

SEPTEMBER 2024

Centrally Sponsored Scheme of Teacher Education and Total Quality Management of Teacher Education Institutions in Mizoram: An Analytical Study

By

H. LALHRUAITLUANGA
Department of Education

Supervisor
Prof. LYNDA ZOHMINGLIANI

Submitted
In partial fulfillment of the requirement of the degree of
Doctor of Philosophy in Education of Mizoram University, Aizawl

MIZORAM UNIVERSITY

AIZAWL, MIZORAM -796004

Prof. Lynda Zohmingliani **Phone: 9436145408**

Department of Education **E-mail: lynda.zohmingliani@gmail.com**

Dated Aizawl, the 4th September, 2024

CERTIFICATE

This is to certify that the thesis entitled '**Centrally Sponsored Scheme of Teacher Education and Total Quality Management of Teacher Education Institutions in Mizoram: An Analytical Study'** submitted by **H.Lalhruaitluanga, Regn. No. MZU/Ph.D./1216 of 27.07.2018** for the Degree of Doctor of Philosophy in Education of the Mizoram University, Aizawl, India embodies the record of original investigations carried out by him under my supervision. He has been duly registered and the thesis presented is worthy of being considered for the award of a Ph.D. degree. This research work has not been submitted to any other university for any degree.

(PROF. LYNDA ZOHMINGLIANI)

DECLARATION

MIZORAM UNIVERSITY

SEPTEMBER 2024

I **H. Lalhruaitluanga**, hereby declare that the subject matter of this thesis is the record of work done by me, that the contents of this thesis did not form the basis of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/ Institute.

This is being submitted to the Mizoram University for the **Degree of Doctor of Philosophy in Education.**

(H. LALHRUAITLUANGA)
Candidate

(PROF. LOKANATH MISHRA)	(PROF. LYNDA ZOHMINGLIANI)
Head	Supervisor
Department of Education	Department of Education

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to all those who lend their tremendous support and help for the completion of this thesis.

First and foremost, I praise and thank the Almighty God for his abundant blessings and guidance without whom I and this thesis would not have seen the light of day.

I am extremely grateful to Prof. Lynda Zohmingliani, for her valuable guidance, supervision, scholarly inputs and consistent encouragement I received throughout the research work. Without her persistence, dedication and sacrifice, this research work may not have been completed. Her patience, understanding and prayer made this journey through the course a rewarding experience.

I am sincerely thankful to Prof. Lokanath Mishra, Prof. H. Malsawmi, Prof. Lalhmasai Chuango (Mizoram University) for their kind encouragement, invaluable expertise, guidance and understanding.

My heartfelt gratitude to Pi Laldawngliani Chawngthu, former Director, SCERT Mizoram for her support and kind consideration to pursue this research work. I am sincerely thankful to the Directors, officers and staff of SCERT Mizoram and to all the Principals, teacher educators, teacher trainees and staff at DIET Aizawl, DIET Lunglei, DIET Saiha, DIET Champhai, DIET Kolasib, DIET Serchhip, DIET Lawngtlai, DIET Mamit and IASE Aizawl for their time and co-operation and to all friends, colleagues and professors for their understanding, advice, and support. Special thanks to Marmar Mukhopadhyay for his questionnaires.

Last but not the least, my love and affection to my family – for everything

Dated: Aizawl, the 4th of September, 2024

(H. LALHRUAITLUANGA)
Department of Education
Mizoram University

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Sl. No.	Abbreviations	Full Form
1.	ACR	Annual Confidential Report
2.	ANOVA	Analysis of Variance
3.	AWP	Annual Work Plan
4.	B.Ed	Bachelor of Education
5.	BITE	Block Institute of Teacher Education
6.	BRC	Block Resource Centre
7.	BRP	Block Resource Person
8.	CCE	Continuous and Comprehensive Evaluation
9.	CD	Compact Disc
10.	CEO	Circle Education Officer
11.	CRC	Cluster Resource Centre
12.	CRP	Cluster Resource Person
13.	CSSTE	Centrally Sponsored Scheme of Restructuring and Reorganisation of Teacher Education
14.	CTE	College of Teacher Education
15.	DEO	District Education Officer
16.	D.El.Ed	Diploma in Elementary Education
17.	DIET	District Institute of Education and Training
18.	DRC	District Resource Centre
19.	DVD	Digital Video Disc
20.	ECCE	Early Childhood Care and Education
21.	EDUSAT	Educational Satellite
22.	ET	Educational Technology
23.	GDP	Gross Domestic Product
24.	GoI	Government of India
25.	GPF	General Provident Fund
26.	HBE	Home Based Education
27.	HOD	Head of Department
28.	IASE	Institute of Advanced Studies in Education

Sl. No.	Abbreviations	Full Form
29.	ICT	Information and Communication Technology
30.	IEDSS	Inclusive Education for Disabled at Secondary Stage
31.	IT	Information Technology
32.	ITES	Information Technology Enabled Services
33.	ITI	Industrial Training Institute
34.	LCD	Liquid Crystal Display
35.	M.Ed	Master of Education
36.	MHRD	Ministry of Human Resource Development
37.	MIE	Mizoram Institute of Education
38.	MIS	Management Information System
39.	MIPQ	Mukhopadhyay's Institutional Profile Questionnaire
40.	M.Phil	Master of Philosophy
41.	NCERT	National Council of Educational Research and Training
42.	NCF	National Curriculum Framework
43.	NCFTE	National Curriculum Framework for Teacher Education
44.	NER	North Eastern Region
45.	NITI	National Institution for Transforming India
46.	NPE	National Policy on Education, 1986
47.	NTS	National Talent Search
48.	NIEPA	National Institute of Educational Planning and Administration
49.	OSD	Officer on Special Duty
50.	PAC	Programme Advisory Committee
51.	RIE	Regional Institute of Education
52.	RMSA	Rashtriya Madhyamik Shiksha Abhiyan
53.	RTE Act	Rights of Children to Free and Compulsory Education Act
54.	SCERT	State Council of Educational Research and Training
55.	SC/ST	Scheduled Caste/Scheduled Tribe
56.	SDEO	Sub-Divisional Education Officer
57.	SDMC	School Development and Monitoring Committee
58.	SED	Standard Error Difference

Sl. No.	Abbreviations	Full Form
59.	SEP	State Education Policy
60.	SIE	State Institute of Education
61.	SIVE	State Institute of Vocational Education
62.	SLCMC	State Level Co-ordination and Monitoring Committee
63.	SME	Small and Medium Scale Enterprise
64.	SSA	Sarva Shiksha Abhiyan
65.	SWOT	Strengths, Weaknesses, Opportunities, and Threats
66.	TEAB	Teacher Education Approval Board
67.	TEI	Teacher Education Institution
68.	TET	Teacher Eligibility Test
69.	TLM	Teaching Learning Material
70.	TQM	Total Quality Management
71.	TTI	Teacher Training Institute
72.	TV	Television
73.	UDISE	Unified District Information System for Education
74.	UGTTI	Under Graduate Teacher Training Institute
75.	USA	United States of America
76.	VCD	Video Compact Disc

CHAPTER I

INTRODUCTION

1 Introduction

Education is a continuous process and is dynamic in its nature. Teaching-learning process also evolves according to societal needs and demands. The Indian Education Commission 1964-66 rightly said that the destiny of India is being shaped in her classrooms. The quality of education largely depends upon the ability and efficiency of teachers and teaching has now become one of the most challenging professions in our society. A lot of changes happened in the field of teacher education in India by the latter part of the 20th Century and the beginning of the 21st Century. The National Policy on Education 1986 (NPE ’86) mention that teacher education is a continuous process and its pre-service and in-service components are inseparable. The educational environment is changing rapidly and will continue to change and teachers have to be prepared to cope intelligently with the social, economic and technological changes and challenges. On a global scale, educational systems are under great pressure to adopt innovative methodologies and to integrate new technologies in the teaching and learning process, to prepare students with the knowledge and skills they need in the 21st century. Apparently, teaching profession is evolving from an emphasis on teacher-centred, lecture-based instructions to student-centric interactive learning environments.

At the national level, education has been receiving greater attention especially in independent India as can be inferred from the provision made in the Constitution and from the actions subsequently taken to translate the provisions into action. The Ministry of Human Resource Development (now Ministry of Education) 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 as in the case of teacher education the Centrally Sponsored Scheme of Teacher Education (CSSTE) has been instrumental in bringing about wholesome change in the teacher education scenario.

The Centrally Sponsored Scheme of Teacher Education commonly referred as Teacher Education Scheme or CSSTE was initiated in 1987 pursuant to the formulation of the National Policy on Education, 1986. The National Policy on Education (NPE) states that improvement in the status and professional competence of teachers is the cornerstone of educational reconstruction. It envisaged teacher education as a continuous process with pre-service and in-service training being its inseparable components. In its original form, the teacher education scheme comprised of five components, namely (a) setting up 400 District Institutes of Education and Training (DIETs), (b) strengthening 250 Colleges of Teacher Education (CTEs), and development of 50 of them as Institutes of Advanced Studies in Education (IASEs), (c) strengthening of State Councils of Educational Research and Training (SCERTs), (d) orientation of five lakh school teachers every year, (e) establishment and strengthening of Departments of Education in Universities.

The Centrally Sponsored Scheme of Teacher Education continued with modifications in the 8th, 9th and 10th, 11th and 12th Five Year Plan periods. The schemes were changed for the 12th Plan to meet the special challenges for the teacher education system coming from the huge spatial and numerical growth of educational facilities at the elementary and secondary levels and the commensurate increase in teacher demand. After the 12th Five Year Plan, it was subsumed under Samagra Shiksha Abhiyan along with Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA).

The Centrally Sponsored Scheme of Teacher Education has been revised for the 12th Plan in order to meet the exceptional challenges for the teacher education system arising from the massive spatial and numerical expansion of schooling facilities at the elementary and secondary levels and the corresponding increase in the demand for teachers. The main components of the revised Scheme are as under:

i. Strengthening and up-gradation of State Councils for Educational Research and Training/State Institutes of Education
ii. Strengthening of existing IASEs and up-gradation of Departments of Education of Universities into IASEs
iii. Strengthening of CTEs and establishment of new CTEs

iv. Strengthening of existing DIETs and extending their mandate for training of teachers at the secondary level.

v. Establishment of Block Institutes of Teacher Education (BITEs) in 196 identified SC/ST/ Minority concentration districts as elementary pre-service teacher education institutions

vi. Identification of 50 lead institutions, including Departments of Education in Universities, NUEPA, NCERT, Academic Staff Colleges and other institutions in the non-Government sector to conduct refresher courses for teacher educators.

vii. Provide hardware support, namely provisioning of satellite transmission facilities in the DIETs and provisioning of software support for developing content for orientation of teacher educators and teachers.

viii. Giving SCERTs and DIETs the mandate to involve not-for-profit organizations for conducting innovative field-based programmes relating to teacher education, collaboration in in-service and pre-service teacher education, undertaking impact assessment studies and designing & developing locally relevant material for teachers and student-teachers of teacher education institutions.

ix. Developing and putting in place a comprehensive monitoring mechanism.

Consequent upon the implementation of the constitutional provision such as Article 275 for the educational development of tribal areas, Mizoram 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. Mizoram has the distinction of being one of the most peaceful states among the north east states in India. Since a treaty was signed between the government of India and the then union territory of Mizoram in the year 1986, Mizoram has witnessed a number of developments it might have otherwise missed had it still been an insurgent territory. Today, its literacy rate is amongst the top three states in the whole of India.

Teacher education can be considered to start early in the 20th Century in Mizoram as Teacher Training was initiated in 1901 by the Christian Missionaries with only a few boys. In fact, the first batch of Mizo teacher trainees were middle school graduates whom the Christian Missionaries thought to have an aptitude for teaching. Since then, the Christian Missionaries who look after education continue to train

teachers. Knowing the need and importance of teacher training, it was continued by the Government at that time and eventually Basic Training Centre was established in 1953 which later on was upgraded to Under Graduate Teacher Training Institute (UGTTI) and was later converted as Teacher Training Institute (TTI) to accommodate graduate teachers. Under the Centrally Sponsored Scheme of Teacher Education, the two TTIs were upgraded into DIETs in 1988 (Aizawl) and 1993 (Lunglei). In the year 2005, District Resource Centres were established in the six districts having no DIETs and were later upgraded to DIETs in April 15, 2013. The sole CTE was upgraded into an IASE which today performs the dual function of IASE and CTE as there is no other CTE in the state. SCERT was established in 1980 as one wing under the Directorate of School Education. It was later on upgraded to a separate directorate in 2008.

Total Quality Management (TQM) is often understood as a management philosophy and can be considered as a strategy of managing quality of products or services which is approached comprehensively with a continuous and sustained effort. It can also mean a systems approach to the management of an institution in which all the components of the system or sub-systems are considered to produce a complex organism.

The concept of total quality management has been realized for quite some time especially in the management sector. It was advocated by Dr. W. Edwards Deming in the latter part of the 1950's in the USA. As a nation, Japan was considered as the first country who embraced Total Quality Management as a concept which is now considered as an important strategy to recover their economy after the World War II. This approach to continuous improvement is known as 'kaizen' in Japanese which may be literally translated as a 'step-by-step improvement'.

The concept of Total Quality Management in education dates back to the late 1980's when David Langford introduced to a High School in Sitka, Alaska in 1988. The popularity of Total Quality Management has grown tremendously which is evident from the plethora of books and journals since the 1990's and has been imbibed in various educational institutions even in India.

There can be various ways in which Total Quality Management is addressed in educational institutions as it relates to productivity and financing as well. More often, there is a varying perspective on the approach where some may consider student

satisfaction as a crucial element while others may see it as a philosophy fostering change in the learning organization.

Mukhopadhyay and Narula (1992) have identified 10 areas or sub-systems for addressing TQM in the context of educational institutions, which were:

1.	vision, mission and goals	2.	academics
3.	personnel	4.	finance
5.	infrastructure	6.	linkages and interface
7.	student services	8.	rules, regulations, methods and procedures
9.	institution building process	10.	managing people at work

Strategic planning and organisational diagnosis is often used for introducing TQM in educational institutions. Strategic planning implies developing an institutional plan for skillful and judicious use of resources and involves elements or steps such as vision, diagnosis, strategies and programmes as well as implementation. Organizational Diagnosis is a process based upon behavioral science theory for publicly entering a human system, collecting valid data about human experiences with that system, and feeding that information back to the system to promote increased understanding of the system by its members (Alderfer, 1981). It contains a research approach leading to a statement about the functioning of the organization. It helps in improving the organizational efficiency, organizational effectiveness, or flexibility of the organization. Today institution or organization has become more important than the system. Therefore, it is very essential to understand the organization, and try to see how organization can be developed

1.1 State Profile - Mizoram:

The state of Mizoram is located in northeastern India, and its capital city is Aizawl. Ram, which means land, and Mizo, the name of the indigenous people, are the sources of the name Mizoram, which translates to "land of the Mizos." It has borders with Tripura, Assam, and Manipur, three of the Seven Sister States, and is the southernmost landlocked state in the northeast. The state is bordered by Bangladesh and Myanmar, two neighboring nations, for 722 kilometers.

Mizoram was previously known as the Lushai Hills district and was a part of Assam until 1972. It was was raised to the status of Union Territory in January 1972 under the provision of North Eastern States (Reorganisation) Act 1971. On 20th

February 1987 it was granted Statehood as the 23rd State under an act of Parliament - The constitution (Fifty Third Amendment) Act 1986. The State has 11 administrative districts with 26 Rural Development Blocks. According to the 2011 census there is a total of 830 villages out of which 126 are inhabited in the State. Mizoram has 23 Notified Towns scattered into the 11 Districts.

1.2 Administrative Structure:

The state has 11 administrative districts, and 26 Rural Development Blocks and 22 civil sub divisions. The civil administrative officers belong to the Indian Administrative Service and Mizoram Civil Service Cadres. Junior Grades of the Mizoram Civil Service serve in the subsidiary capacities. At the village level there are village councils with the administrative and judicial functions within their respective villages. Educational administration runs parallel to the civil administration to the district level only; at the lower level it has its own hierarchy and jurisdiction.

The two administrative districts of Lawngtlai and Siaha have three Autonomous District Councils i.e Lai Autonomous District Council with headquarters at Lawngtlai. Mara Autonomous District Council with headquarters at Siaha and Chakma Autonomous District Council with headquarters at Chawngte (Kamalanagar) which is in Lawngtlai district. By the provisions of the Constitution, these Autonomous District Councils administer the elementary education within their respective areas.

1.3 Education in Mizoram

Education before the coming of the British in Mizoram takes place mostly at home, or Zawlbuk which primarily served as a common dormitory for all the young male of the village. Vigorous training in the art of tribal warfare, wrestling, hunting and village discipline were imparted to the youths. The activities gave the required knowledge for playing an effective role in the life of the society. For girls, home is the only school. The elder female members trained the young girl in household works and chores. The Mizo youths learn many things through imitation from their parents and elders.

Prior to the coming of the British, there was no organized formal educational system for the Mizo people. Education was imparted through parents, elders, Val Upa etc. When British Missionaries came to Mizoram in 1894, they felt the necessity to start schools to educate the illiterate converts so that they could read the Bible.

Although majority of the school in Mizoram is now managed under the state government, almost half of the student population are enrolled in other management especially schools run by the churches and private English medium schools.

Mizoram Education through the ages has evolved through various ups and downs. The Insurgency movement that started in 1966 had hampered the gradual growth of Education in the state. Even amidst such political and social turmoil caused by the insurgency, the thirst for education was so great and the general masses were well aware of what education has brought to them, as a result the growth of education witnessed a gradual progress.

1.4 Administrative Structure (Education)

The overall control and administration of School Education Department in the State is in the hands of Minister i/ c School Education, who is of Cabinet rank. The Minister is assisted by Commissioner/Secretary, School Education Department and Director of School Education and Director of SCERT. A very brief description of the administrative set up of School Education Department is given below:

1.4.1 The Secretariat:

The organizational set up of School Education Department in Mizoram is broadly divided into two administrative establishments viz. the Secretariat and Directorates. At the Secretariat, the Commissioner/Secretary is at the top of the hierarchy. He is also the executive head of the School Education Department. Down the line at the Secretariat are one Additional Secretary, Joint Secretary, Deputy Secretary and Under Secretary. They are assisted by Superintendents and other ministerial staff. The Secretariat is mainly responsible for framing of rules and regulations, all planning and policy matters, appointment, transfer and posting of all gazetted officers under School Education Department. The Commissioner/Secretary is directly responsible to the Minister.

1.4.2 The Directorate: Directorate of School Education

At the Directorate level, the Director of School Education is at the top and is responsible for the overall control and coordination of all the works performed at the Directorate. Presently, he is assisted by one Additional Director and two Joint Directors, four Deputy Directors. Each Joint Director and Deputy Director has their own specifically assigned duties. The main division of work and duties among these officers are Administration, Elementary Education, Secondary Education, Adult Education, Physical Education, Accounts, Midday Meal Scheme and Hindi Wing. They are also assisted by other group of officers dealing with specialised duties such as Asst. Director (Adult Education), Physical Education Officer, Hindi Propagation Officer, Research Officer dealing with matters concerning statistics etc. Superintendents and other ministerial staff assist him in the daily office routine works. The Director of School Education is directly responsible to the Government in all matters pertaining to School Education in the State.

1.4.3 Directorate of SCERT, Mizoram

The State Council of Educational Research and Training started as on academic wing under the Directorate of School Education headed first by Officer on Special Duty (OSD) and later, the Post was given the status of Deputy Director and again upgraded to Joint Director for 28 years. It finally became a full-fledged Directorate on 22nd May 2008 as envisioned for over two decades by the Government of Mizoram Draft 8th Five Year Plan (1992-1997).

The up-gradation of SCERT was in pursuance of the decision taken by the Council of Ministers in its Meeting held on 9.5.2008. The Government of Mizoram then notified an order for bifurcation of the existing Directorate of School Education Department into 2(two) Directorates namely Directorate of School Education and Directorate of State Council for Educational Research and Training (SCERT), with the following Wings with immediate effect.

1. Directorate of School Education
   - (i) Elementary Education (ii) Secondary Education
   - (iii) Adult Education (iv) Physical Education
   - (v) Hindi Education (vi) Pre-Matric Scholarship
   - (vii) Statistics

2. Directorate of State Council for Educational Research and Training

(i) Teacher Education and Extension Service,

(ii) Curriculum Development,

(iii) District Institute of Education and Training (DIET)

(iv) Telescopic DIET/District Research Centre (DRC)

(v) Vocational Education,

(vi) Language Development.

(vii) Science Promotion Wing.

This issues with the concurrence of General Administration Department vide their I.D.No.A.46012/3 /2008-GSD dated 9.5.2008.

Another notification was issued in relation to the Science Promotion Wing which runs as follows - In supersession of this Department's Notification No.A.19029/1/82-EDN / pt dated 23.10.1989 and in order to achieve better administrative control and to eliminate technical difficulties, it is clarified that the Science Promotion Wing, shall be under the umbrella of the SCERT as one of its Academic Wings. Accordingly, the Joint Director, SCERT will look after and supervise the Science Promotion Wing and will function as the Drawing and Disbursing Officer of the Science Promotion Wing.

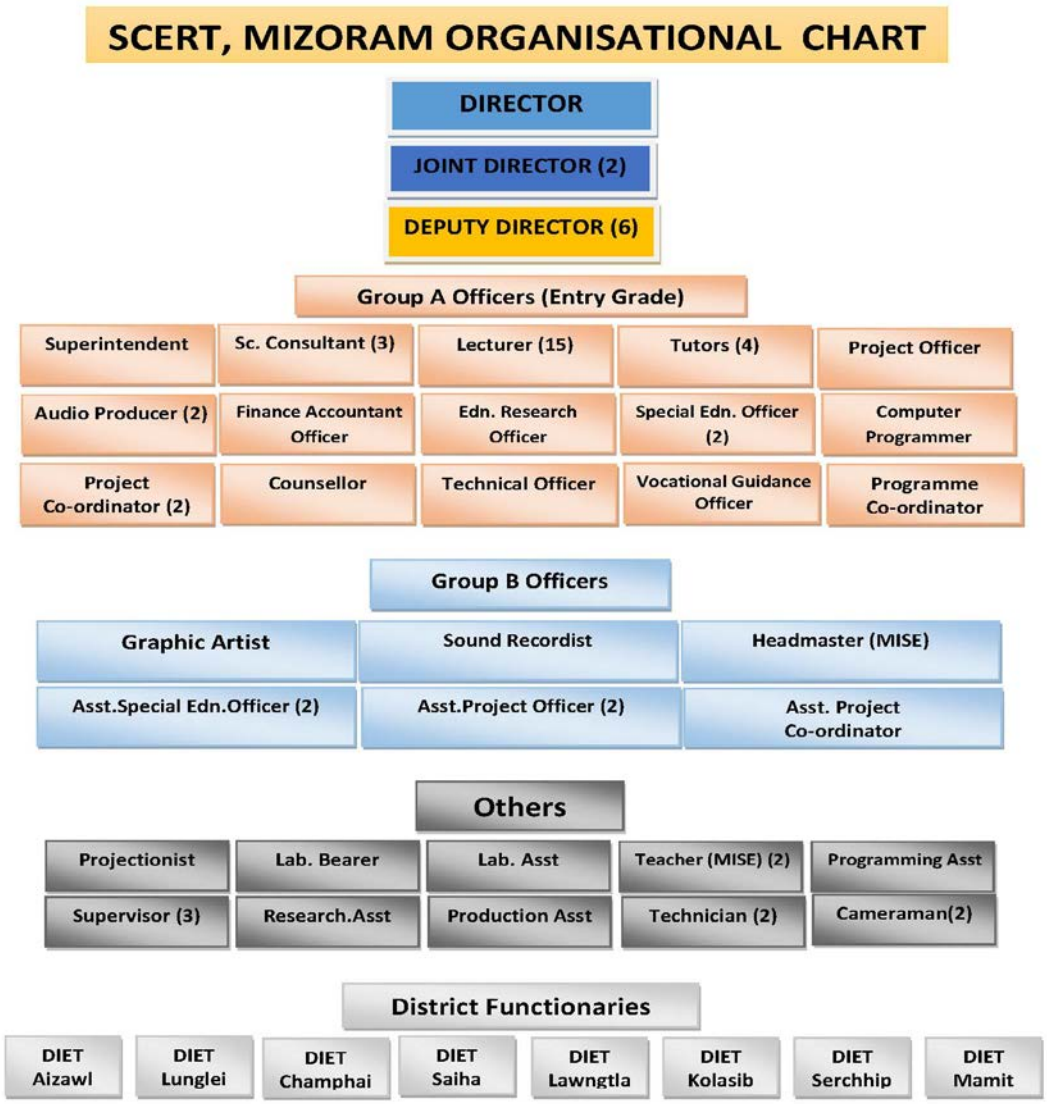
After it became the Directorate, the number of officials also increased, and the Department also enlarged. The number of Posts sanctioned was 108 (one hundred and eight) on a permanent basis and 31 (thirty-one) are employed on a contract basis. New posts were also created such as one Director of SCERT, one Joint Director of SCERT, one Deputy Director and one Finance and Accounts Officer.

The Directorate of SCERT is headed by the Minister of School Education. Under the Minister there is a Secretary of School Education at the Secretariat level supported by necessary supporting staff. The Secretariat set up is concerned with policy-decision and controls the Directorate with regard to all the activities of SCERT.

The Director is the chief administrator of SCERT at the Directorate level. She is assisted by two Joint-Directors, who are looking after General Administration, Planning and Budget, District Institutes of Education and Training (DIET), training programmes and other programmes of academic concern, extension services, the library and different academic departments of SCERT.

The Joint Directors are assisted by 6 (six) Deputy Directors. who are in-charge of General Administration and academic departments. One Deputy Director assists in the general administration and the other five Deputy Directors are in-charge of looking after the different academic Departments.

The Directorate has many other personnel who are in-charge of general administration, finances, library, documentation and academic. The Academic Officers are assisted by Technical Staff, who are in charge of maintaining and operating mechanical equipment and arrangements of different programmes. The Directorate is also responsible for drawing and disbursing of funds and grants as approved by the State and Central Government.



1.5 Information on Teacher Training Institutions

1.5.1 SCERT:

The State Council of Educational Research and Training (SCERT) was established in 1980 as an academic wing of the School Education Directorate and was made a separate Directorate on 22nd May 2008. It has been declared the Academic Authority for the Elementary Education of the State following the enactment of the RTE Act, on 22nd Sept 2010 and it is concerned with the development of curriculum and textbook at the elementary stage. Teacher education and training is one unit among its many programmes. The varied training packages of the SCERT are mostly of short term duration while a few are of longer durations.

SCERT deals with the academic aspects of different levels of education like Primary Education, Secondary Education, Teacher Education, In-service orientation programmes, and continuing education. It also concerned with the Curriculum and Textbook development, Science Promotion, Vocational Education, Special Education, Social Sciences & Humanities, Computers and Information Technology and Educational Research. There are two chief domains (i) Training and (ii) Research. Educational Training relates to providing extension and in-service training programmes to teachers, teacher educators, educational supervisors and educational administrators like CEO, DEO, SDEO and Headmasters and Principals of High Schools & Higher Secondary Schools.

1.5.2 IASE/CTE

The Institute of Advanced Study in Education (IASE) was established in 1975. First known as Mizoram Institute of Education (MIE), it later became the College of Teacher Education (CTE) in 1997, the only CTE in the State, and further upgraded to its present status of an IASE in 2005. The IASE began functioning from the 3rd March 2012. The IASE Aizawl is performing the dual function of IASE and CTE.

1.5.3 DIETs

The Christian Missionaries initiated Teacher Training in Mizoram with only a few boys in 1901, who were middle school graduates having aptitude for teaching. The government continued to support teacher training and in 1953, a Basic Training Center was formed and later upgraded to an Under Graduate Teacher Training Institute.

Under the Restructuring and Reorganisation of Teacher Education in the Ninth Plan, the two TTIs were upgraded into DIETs in 1989 (Aizawl) and 1993 (Lunglei). Chhimtuipui district at that time was the only district in Mizoram which did not have a DIET in its own.

The Ministry of Human Resources Development, Government of India, approved the establishment of six new Telescoped District Institutes of Education and Training (DIETs) in the districts of Saiha, Lawngtlai, Serchhip, Champhai, Kolasib, and Mamit in the year 2003-04. These Telescoped DIETs, also known as District Resource Centres (DRCs), were officially established in 2005 in six districts of Mizoram. Their primary focus is on providing in-service teacher training for elementary stages, conducting action research, on-site academic support to schools and organising workshops, seminars for teachers, headmasters, education officials, NGOs, community leaders etc. The District Resource Centres do not provide pre-service teacher education during this time.

The Guidelines for Restructuring and Re-organisation of the Centrally Sponsored Scheme on Teacher Education June 2012 have made a provision that the existing District Resource Centres (DRCs) can be upgraded into full-fledged DIETs on need basis. Acting upon this provision the state government proposed all six DRCs to be upgraded to DIETs and consequent to the approval by the central government all six DRCs of Mizoram was upgraded to full-fledged DIET on 15th April 2013.

1.6 Rationale of the Study

In order to provide quality education to the country, the National Policy on Education 1986 proposed the setting up of a Centrally Sponsored Scheme of Teacher Education throughout the country. While funding for various components of the scheme was provided by the Central Government, in accordance with the guidelines framed by it, the responsibility for day-to-day administration of the Scheme was vested in the respective states/UTs.

The application of Total Quality Management in education surfaced in the late 1980’s and has become increasingly popular in the modern era of education where education is often considered as an investment and as such the government has invested huge amount of resources from pre-school education to the university level education through various grants, commissions and schemes. Teachers Education

institutes play a vital role in improving the quality of the education by preparing prospective teachers and providing support to become an effective teacher. It can be considered that the real dynamic force of education are teachers and that no nation can rise above the quality of its teachers as mentioned in the National Policy on Education 1986, which suggested a variety of steps to improve the status of teacher with effective accountability. This has an implication on the quality of teacher education which would largely depend upon the effectiveness of teacher education institutions.

Industrialists in India often mention the huge skill shortage in the country and many are of the opinion that the growth and development may not be able to be sustained if these crises are not addressed properly. In this context, higher education is widely perceived as an important factor for the emergence of India to the global knowledge economy. At the same time, it is widely believed that the Indian education system lacks the quality needed which the National Knowledge Commission (NKC) termed as ‘quiet crises. Thus, it become imperative to implement Total Quality Management in our education system just as Japan used the same philosophy to rebuild their country after the 2nd world war.

Teacher education needs to be more sensitive to the emerging demands of the school system. For this, it has to prepare teachers for a multifaceted role with the demand for quality education being a relentless pursuit. Quality can be considered as the totality of features and characteristics of product, process or service which can satisfy the innate as well as external needs. In Mizoram, the expansion of teacher education and the teacher education institutions have been observed within the past few years especially during the 12th Five-year plan i.e. during 2012 – 2017. At the same time there is a growing concern regarding decline in the quality of education system in the state.

The Union Government has already replaced the Planning Commission with an institution called NITI Aayog (where NITI stands for National Institution for Transforming India) and the Centrally Sponsored Scheme of Teacher Education also was already subsumed under the new centrally sponsored scheme called the Samagra Shiksha Abhiyan. The extent to which the Centrally Sponsored Scheme of Teacher Education was implemented has to be known, the growth and development which the scheme envisioned to be achieved, also the issues and challenges in realizing the

scheme has to be ascertained so as to prepare for future developments and also clarify the effectiveness of the scheme as an independent one or as part of an integrated scheme. This may be ascertained only through research.

The study has relevance in the current educational scenario because quality in education is emphasized as a present concern and Total Quality Management (TQM) is becoming popular for promoting quality in educational systems. It is imperative to ascertain the quality of teacher education institutions in the state. The rise of teacher education in Mizoram over the last decade or so also needs to be studied.

More importantly, the study has special significance because a serious attempt to find out the impact of Centrally Sponsored Scheme of Teacher Education and Total Quality Management in teacher education institutions has been made. The fact that Centrally Sponsored Scheme of Teacher Education as an independent scheme has been discontinued makes it even more important to collect pertinent facts about it to open doors for comparisons with other schemes. The study is an attempt to glimpse teacher education as a process as well as a product, it is also worthwhile for the institutions under study as well since it has been an attempt to realise their strengths and weaknesses which they may use as an opportunity to move forward.

Thus, this study may be beneficial for planners, managers and other academicians as well, as it is an attempt to disclose the plan and programme implementation under a heavily financed scheme for quality education in a comprehensive manner. It is but the need of the hour to examine the reality of teacher education in Mizoram and its true potential of spearheading quality education so as to ascertain the resources invested so far and the projected future investment would not prove to be futile.

1.7 Statement of the Problem

The problem of the present study has been stated as Centrally Sponsored Scheme of Teacher Education and Total Quality Management of Teacher Education Institutions in Mizoram: An analytical study to assess the development as well as the capacity of teacher education institutions in Mizoram in the light of the Centrally Sponsored Scheme of Teacher Education and to ascertain the quality of teacher education institutions therein.

1.8 Operational Definitions of Key Terms

1.8.1 Centrally Sponsored Scheme of Teacher Education:

A scheme initiated in 1987 pursuant to the formulation of the National Policy on Education, 1986 and sanctioned by the Ministry of Human Resource Development, Govt. of India and often referred as Teacher Education Scheme or CSSTE. In its original form, the Teacher Education scheme comprised of five components, namely (a) setting up 400 District Institutes of Education and Training (DIETs), (b) strengthening 250 Colleges of Teacher Education (CTEs), and development of 50 of them as Institutes of Advanced Studies in Education (IASEs), (c) strengthening of State Councils of Educational Research and Training (SCERTs), (d) orientation of five lakh school teachers every year, (e) establishment and strengthening of Departments of Education in Universities

The Centrally Sponsored Scheme of Teacher Education continued with modifications in the 8th, 9th and 10th, 11th and 12th Five Year Plan periods. After the 12th Five Year Plan, it was subsumed under Samagra Shiksha Abhiyan along with Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA). CSSTE has been revised for the 12th Plan in order to meet the exceptional challenges for the teacher education system arising from the massive spatial and numerical expansion of schooling facilities at the elementary and secondary levels and the corresponding increase in the demand for teachers. The main components of the revised Scheme are as under:

i. Strengthening and up-gradation of State Councils for Educational Research and Training/State Institutes of Education
ii. Strengthening of existing IASEs and up-gradation of Departments of Education of Universities into IASEs
iii. Strengthening of CTEs and establishment of new CTEs
iv. Strengthening of existing DIETs and extending their mandate for training of teachers at the secondary level.
v. Establishment of Block Institutes of Teacher Education (BITEs) in 196 identified SC/ST/ Minority concentration districts as elementary pre-service teacher education institutions

vi. Identification of 50 lead institutions, including Departments of Education in Universities, NUEPA, NCERT, Academic Staff Colleges and other institutions in the non-Government sector to conduct refresher courses for teacher educators.

vii. Provide hardware support, namely provisioning of satellite transmission facilities in the DIETs and provisioning of software support for developing content for orientation of teacher educators and teachers.

viii. Giving SCERTs and DIETs the mandate to involve not-for-profit organizations for conducting innovative field-based programmes relating to teacher education, collaboration in in-service and pre-service teacher education, undertaking impact assessment studies and designing & developing locally relevant material for teachers and student-teachers of teacher education institutions.

ix. Developing and putting in place a comprehensive monitoring mechanism.

1.8.2 Total Quality Management:

Often understood as a management philosophy. In this study, it will refer to a systems approach to the management of an institution in which all the components of the system or sub-systems are considered to produce a complex organism. The proposed study will attempt to ascertain Total Quality Management in teacher education institutions in Mizoram based on 11 areas of quality such as – Leadership, Teacher quality, Linkages and interface communication with the environment, Students: academic and non-academic quality, Co-curricular activities: non-scholastic areas, Teaching: quality of instruction, Office management: support services, Relationship: corporate life in the institution, Material resources: instructional support, Examination: purposefulness and methodology and Job satisfaction: staff morale

1.8.3 Teacher Education Institutions:

According to NCTE, a programme of education, research and training of persons to teach from pre-primary to higher education level is known as teacher education. Those institutions imparting teacher education are Teacher Education Institutions. In this study, it will refer to the 8 DIETs of Mizoram which are DIET Aizawl, DIET Lunglei, DIET Saiha, DIET Champhai, DIET Kolasib, DIET Serchhip, DIET Lawngtlai and DIET Mamit as well as IASE Aizawl and SCERT, Mizoram.

1.9 Research Questions of the study

Considering the research topic, the following research questions have been raised:

1. Would it be possible to trace the origin and development of Centrally Sponsored Scheme of Teacher Education in Mizoram?
2. What are the changes brought about by the Centrally Sponsored Scheme of Teacher Education in Mizoram?
3. What are the problems and challenges faced by the stakeholders in implementing Centrally Sponsored Scheme of Teacher Education?
4. How do teacher educators perceive their institutions in terms of quality management?
5. Is there any difference among male and female teacher educators regarding the total quality management of their respective institutions?
6. How do teacher trainees perceive their institutions in terms of quality management?
7. Is there any difference among male and female teacher educators regarding the total quality management of their respective institutions?
8. Will there be any difference in the total quality management of teacher education institutions in Mizoram?
9. Is there any difference between teacher educators and teacher trainees regarding the total quality management of their respective institutions?
10. Can any measures be taken in order to strengthen teacher education institutions in Mizoram?

1.10 Objectives of the Study

Based on the research questions, the following are the objectives for the study:

1. To trace the origin and development of Centrally Sponsored Scheme of Teacher Education in Mizoram.
2. To examine the changes that have taken place in teacher education in Mizoram since the implementation of Centrally Sponsored Scheme of Teacher Education.
3. To examine the problems and challenges faced by the stakeholders in the implementation of Centrally Sponsored Scheme of Teacher Education.

4. To examine the perception of teacher educators about Total Quality Management of teacher education institutions in Mizoram.
5. To compare the perception of male and female teacher educators about Total Quality Management of teacher education institutions in Mizoram.
6. To examine the perception of teacher trainees about Total Quality Management of teacher education institutions in Mizoram.
7. To compare the perception of male and female teacher trainees about Total Quality Management of Teacher education institutions in Mizoram.
8. To compare the Total Quality Management of teacher education institutions in Mizoram.
9. To compare the perception of teacher trainees and teacher educators about Total Quality Management of teacher education institutions in Mizoram.
10. To suggest measures for strengthening teacher education institutions in Mizoram.

1.11 Hypotheses of the study

The following research hypotheses were framed:

1. Teacher educators of teacher education institutions in Mizoram have a positive perception about Total Quality Management of teacher education institutions in Mizoram.
2. There is a significant difference between the perception of male and female teacher educators about Total Quality Management of teacher education institutions in Mizoram.
3. Teacher trainees of teacher education institutions in Mizoram have a positive perception about Total Quality Management of teacher education institutions in Mizoram.
4. There is a significant difference between the perception of male and female teacher trainees about Total Quality Management of teacher education institutions in Mizoram.
5. There is a significant difference between the perception of teacher trainees and teacher educators about Total Quality Management of teacher education institutions in Mizoram.

CHAPTER II
REVIEW OF RELATED LITERATURE

Research in Teacher Education has been considered to provide insightful learning between Teachers and Students. Researchers in different countries have often been studying the subject of mathematics education in different aspects. In Schools, College and University Level, different researchers had unique findings in teacher education. Research in teacher education has mostly been confined to profile, attitude towards students, tools and equipment, feedback given by their students and their satisfaction level of their teaching etc. The findings of these researches have definitely influenced Teacher Education in many positive ways. They have also served to provide answers to unresolved problems in the teaching of their students. This chapter has been organized and presented as studies done in India, studies done Abroad and studies done in Northeast India and Mizoram.

A number of institutional level studies conducted in India and abroad show certain trends regarding teacher education and implementation of various schemes or efforts made on teacher education. Studies and literature pertaining to Total Quality Management in education were rather recent and seems to have emerged as a trending study in the past few decades or so. A few of them were highlighted as follows:

Table No. 2.1

An overview of related researches studied

Span of years of related literature reviewed	Studies done in India	Studies done Abroad	Studies done in Northeast India and Mizoram	Total number of related literatures reviewed
1964-2022	**22**	**7**	**7**	**36**

2.1 Studies conducted in India

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 tract.

Nongbri (1996) conducted a study titled **'A Critical Study of the Role Played by the SCERT towards Qualitative Improvement of School Education in Meghalaya'** and found that the programs and activities of the SCERT seem relevant and helpful to the beneficiaries generally, but they need to be reformulated to tackle the various problems according to the need and situations.

Biswas, I. (2009). conducted his study under the title **"Vocational Education in India"** and found that there were about 5,114 Industrial Training Institute (ITIs) imparting training in 57 engineering and 50 non-engineering trades. Of those, 1,896 were State Government- run ITIs while 3,218 were private. In the F.Y -2002-2003 only 4.15% schools in Punjab, 3.40% schools in Orissa, 10.29% schools in Tamil Nadu, 16.78% schools in Maharashtra, 6.84% schools in Madhya Pradesh, 5.34% schools in Kerala, 8.29% schools in Karnataka, 2.50% schools in Haryana, 5.35 % schools in Gujarat, 3.69% schools in Bihar, 3.31% schools in Assam and 9.82% schools in Andhra Pradesh were imparting Vocational Training. The training courses lack focus on the changing job market. As a result, it was seen from various reports that the number of students were declining for long time Vocational courses, mainly in ITIs. To attract more students from school level, reorientation of Vocational courses was suggested. Lack of accountability and training / supply management were also major problems for training institutes.

Manivannan, M., & Premila, K. S. (2009) on their study "Application of principles of total quality management (TQM) in teacher education institutions" concluded that the global scenario expects skilled teachers to produce students with a versatile personality for which teacher education should be strengthened.

Presidha, S.D. (2011) in his study **"Functioning of District Institute of Education and Training (DIETs) in Garo Hills of Meghalaya"** found that:

- DIET Resubelpara started functioning in the year 2000 while the other two DIETs i.e. DIET Baghmara and DIET Tura Rongkhon started functioning only in the year 2003 and 2004.
- Only one of the surveyed DIETs i.e. DIET Tura Rongkhon has an adequate land area of approximately 15.7 acres while the other two DIETs do not conform to the standard and norms of the NCTE which was around 10 acres.
- Drinking water supply was not adequate in DIET Baghmara whereas electricity supply and telephone connectivity was inadequate in DIET Resubelpara. Internet facility was available only in DIET Resubelpara.
- Most of the surveyed DIETs do not have sufficient number of rooms for conducting training. DIET Resubelpara does not have even a single room for conducting short term training. Besides, the institute does not have a computer room.
- DIET Resubelpara has only one room for teaching staffs which was not adequate whereas the other two DIETs have seven rooms each for the teaching staffs.
- All the surveyed DIETs have separate hostel for men and women. However the hostel facility in all the three DIETs was inadequate.
- Only one of the three surveyed DIETs i.e. DIET Resubelpara have quarter facilities for teaching and non-teaching staffs.
- All the DIETs in Meghalaya followed the same syllabus prescribed by the DERT. The course content of the method papers were framed according to the existing prescribed syllabus for the upper primary schools. One of the lecturers who felt that the present curriculum was relevant only to some extend gave the following reasons-
    a) Present curriculum mainly focuses on book learning and neglect the activity-based learning.
    b) Multi grade setting was neglected in the syllabus.
- Expert faculty in the areas of Non- Formal and Adult Education, Curriculum, Materials Development and Evaluation were not available in all the DIETs.

- Two of the surveyed DIETs were without a regular principal. Besides, all the academic and non-academic posts have not been filled up in most of these institutions.
- All the three DIETs have one accountant each. However, it was observed that there was a shortage of clerks and class IV staff in all the three DIETs. Thus, appointment of librarian in two DIETs, office superintendent in one DIET and appointment of additional clerks and class IV staffs was necessary in all the three DIETs.
- All the three DIETs have 1 television, 1 radio/cassette player, 1 LCD projector and 1 photo copier each and the number of computers in each DIET ranges from 9 to 12. None of the DIETs has a film projector, except DIET Resubelpara have 1 overhead projector.
- The libraries of the surveyed DIETs were not sufficiently equipped, which was a must for the smooth functioning of any academic institutions. The number of books and journals were far below the prescribed NCTE norms for DIETs.
- The study revealed that only one DIET has a psychological laboratory which was used both for physical and life sciences, the other DIETs do not have a laboratory facility. Demonstration and experiments were usually done in the class room itself. Besides none of the surveyed DIETs has a science laboratory.
- .Equipments for visual and performing arts, education of the handicapped and for adult and non-formal education were not available in these institutions, except in DIET Baghmara where equipment for visual and performing arts were available.
- The enrolment of teacher trainees in most of the surveyed DIETs was very less when compared to the intake capacity. It was observed that although DIETs were meant for pre-service and in-service teachers, the enrolment figure of pre-service teachers was very less.
- The surveyed DIETs organized various co-curricular activities. These include debates, literary activities, music, dance, drama, athletics, art and painting, games and sports and cultural programmes.

- There was positive involvement of the teacher trainees in the different co-curricular activities conducted by the DIETs. Participation in the activities like music, dance, drama, games and sports and cultural programs was more than 50 percent.
- There were 281 teachers who have completed the two-year training programme from the three surveyed DIETs in the last five years (2006-2010).
- All of the surveyed DIETs have undertaken exposure trips to other DIETs and educational centre ‘s outside the state for the lecturers as a part of the faculty The DIETs have assisted SSA by organizing and conducting various training programmes for various groups like the Block Resource Persons (BRPs), Cluster Resource Persons (CRPs), Community Leaders, Education Volunteers, Newly Recruited Teachers of Upper Primary and Lower Primary Schools etc.
- It was observed that different methods were adopted by the lecturers during curriculum transaction and during in-service training programmes. The methods adopted by the respondent teachers include lecture method, Discussion method, Demonstration method and Group work method (100%), Project Method (60%), Home Assignment Method and Role Play Method (55%) and Activity Based Method (50%).
- The study reveals that 74.44% of the respondent trainees were class XII passed while the rest 25.55% were graduates in arts.
- The study reveals that though many in-service teachers have many years of teaching experience, very few of them have attended short term in-service training programme. In-fact for a majority of them, their training in these DIETs was their first after joining the profession.
- The teacher trainees have expressed that they have benefitted greatly by attending the training in the DIETs. The areas of teaching where the trainees have greatly benefitted were the skills of teaching, methods of teaching, evaluation technique and attitude towards teaching.
- The study reveals that more than 50% of the trainees’ face problems due to inadequacy of hostel facilities, laboratory facilitates and computer facilities. More than 60% of the trainees faced problems due to inadequacy of

equipment for SUW or craftwork faced problems due to inadequacy of library facilities.

Bafila (2012) in 'Total Quality Management in Teacher Education' found that it was an immediate requirement to shape teacher education in accordance with the global changes to improve competitiveness with the total quality management.

Gaurav Singh, B. (n.d) in his study **"Total Quality Management in Teacher Education"** found that:

- From the responses of the principals, it was evident that in their perception, Satisfaction with Quality, Customer Orientation, Client Education, and Innovation were the areas which were stronger whereas Participation, Community Involvement, Linkages and Staff were the areas which were weaker.
- From the analysis of the interview carried out with the principals of the DIETs, it was found that the principals consider the faculty, curriculum, library, infrastructure, opportunities for professional development, adequate space, relationships, commitment and punctuality of the staff and innovations as the important quality parameters in a Teacher Education Institute.
- Principals state that there were no formal guidelines, or mechanism for assessing the quality of the DIETs but various meeting were conducted where issues of quality were also discussed. The quality of the programmes was determined on the basis of participation, results and appointment. Occasional reports were made on the infrastructure available with the DIET which then can be used assessing the quality of the infrastructure as well. The Annual confidential report was considered as the measure of the quality of the teacher-educators and the results of the exams were considered as the measure of the quality of the student-teachers.
- Principals state that no formal programme was dedicated to the improvement and management of quality in DIETs and most of the efforts in this direction were informal and on a personal level.
- Principals state that there was no formal mechanism was in place to take the feedback of the student-teachers, regarding the quality of the institute, but verbal feedbacks were taken from the student-teachers informally.

- Principals state that there was no formal mechanism was in place to take the feedback of the teacher-educators, regarding the quality of the institute, but meetings were constantly held where they can voice their concerns and suggestions.
- Principals state that the institute has not explored any effective formal mechanism to enhance quality of your institute; however, the institute does everything possible and feasible on their behalf. They felt that any such mechanism has to come from the SCERT which can then be implemented at the level of the institute.
- Principals state that annual reviews were held and issues were discussed with the higher management who they feel must be working on some sort of vision.
- Principals state that long term planning was done by the MHRD and the SCERT while the staffs' carries them out for which the short term plans were made at the level of the institute through annual meetings.
- Principals state that the Planning Unit and the Principals, Director, Joint Director and Heads of Departments, various experts, teacher-educators, faculty from NUEPA and NCERT were called for formulating the plans.
- Most of the principals were not satisfied with the quality of their institute. They were, however, satisfied that they were doing the best we can under the given condition.
- The principals state that they do whatever was possible and feasible at the institute's level to enhance the quality of their institutes.
- Principals state that the impediments to quality enhancement were the shortage of staff, lack of promotion for the staff, lower salaries than their colleagues in the university departments, lack of academic mobility, no GPF and welfare schemes, the lack of funds and resources and the lethargic attitude of the SCERT.
- Principals state that nothing can be done to overcome these impediments, they can be overcome if people at the higher level decide to do sometime.
- Principals state that they take help from anyone who could help them in improving the quality of their institute.

- The principals state that good work of the individual was mentioned in the meetings and may find reflection in the ACRs.
- The principals state that that unsatisfactory work was discussed and resolve at the level of the institute usually but they indicated that it was different for different people as biases and favouritism does exist in the organisation.
- The principals state that their endeavour was to produce capable and committed teachers and also to encourage good research work by the faculty and the institute.
- The principals said that recruitment of staff, their professional development and forging linkages with other teacher Education Institutes could improve the quality of the DIETs.
- The principals state more functional autonomy and training programmes could improve the effectiveness of the Principals.
- The principals said that lack of sufficient number of staff, of autonomy, of infrastructure, of funds, of space, of labs and of jobs was the most important problem being faced by the institute.
- From the responses of the teacher-educators, it was evident that in their perception, Objectives and Goals, Teaching, Teacher Quality, Co-curricular Activities, Relationships, School Experience Programme, Evaluation Process and Students were the areas which were stronger whereas Leadership, Office Management, Linkages, Management Process, Facilities and Material Resources, and Job Satisfaction were the areas which were weaker.
- From the analysis of the interview carried out with the teacher-educators of the DIETs, it was found that the teacher-educators consider that the curriculum must be reviewed. 398 ¬ The teacher-educators state that the construction of the curriculum should be a collaborative effort which should consider the voices of the teacher-educators and the student-teachers along with that of the experts.
- The teacher-educators feel that there should be more opportunities for professional development and more academic freedom at the same time people should also be held accountable.

- The teacher-educators admitted that no induction training or orientation was ever given to make the teacher-educators aware of the objectives and goals of the institute but according to them, the permanent faculty know about it and the contractual try their best according to what was known or made known to them.
- The teacher-educators state that qualifying the exam held for the selection of candidates as teacher-educators indicates that one was capable, however interviews were also necessary to gauge the communication skills and exposure to research.
- The teacher-educators mentioned that only on rare occasion come an opportunity to participate in a professional development programme but only a selected few get the chance due to the widely prevalent biases in the system.
- The teacher-educators pointed out that a lot of co-curricular activities takes place but they were disjoined with the objectives with which they were placed in the curriculum.
- The teacher-educators state that some of the teacher-educators were good but others do not maintain a good relationship nor were they interested in maintaining good relationships. They feel that major strain on the relations was because of the prevalence of biases and favouritism.
- The teacher-educators state that school experience programme be made more effective by decreasing the distance to be travelled by the teacher-educators and also by widening the range of the experiences made available to the student-teachers.
- The teacher-educators state that the principal should ensure equality among all and must not succumb to favouritism or biases or flattery.
- The teacher-educators state that a lot of clerical job was done by the teacher-educators themselves and they feel that that situation could be improved by providing them with better training and by addressing their grievances and understanding their limitations.
- The teacher-educators state that there should be an exchange of the teacher-educators between the various teacher education institutes and more opportunities must be devised to enable interaction between them.

- The teacher-educators state that there was a need to introduce transparency in the evaluation system and to mitigate biases and favouritism from this process.
- The teacher-educators state that the management should ensure that the vacancies were filled up and the ideal pupil-teacher ratio was established. Salaries and facilities for the teacher-educators must also be improved and incentives should be given to them.
- The teacher-educators state that a proper environment and right experiences if provided can bring a sea change in the student-teachers and will enhance their commitment to the course.
- The teacher-educators state that they do their best to motivate the students and despite all odds take up the course in best possible way to ensure the commitment of the student-teachers to their future jobs.
- The teacher-educators feel that auditorium, infrastructure, library, internet/wi-fi and were some of the facilities that the institute lacks in.
- The teacher-educators state that that to make their jobs more satisfying, the promotions, facilities and pay structure should all improve. A good pension scheme like the CPF must be provided to the staff.
- The teacher-educators state that to bring your institute among the best in the country, an ideal pupil-teacher ratio should be maintained and sufficient space should be arranged as per the requirements of the course and the number of students.
- The teacher-educators state that to improve the effectiveness of the teacher-educators, the in-service training and enrichment programmes should be regularly organised and their carrier advancement should be such that it motivates them to perform better.
- The teacher-educators state that high student-teachers to teacher-educators ratio, lack of infrastructure, of a good library, of a proper computer lab, of space, of funds, of good management by SCERT, of research avenues and of proper leadership as the major problems facing the institute.
- From the responses of the student-teachers, it was evident that in their perception, Objectives and Goals, Relationships, School Experience

Programme, Admission Procedure, Leadership, Office staff, Linkages, and Student-teachers were the areas which were stronger whereas Teaching-learning process, Co-curricular activities, School Experience Programme, Institute, Evaluation Process, Timetable, Management Process, and Facilities/Material Resources were the areas which were weaker.

- All the DIETs under the study have adequate number of class-rooms, Sports-room, stores, libraries, toilets and drinking water facilities. The only problem with these physical resources was that there was a lack of maintenance. The size and the seating of the classrooms and of halls/auditoriums was not adequate. Playgrounds of the DIETs under study were usually not maintained and thus, not used much. However, DIET, Karkardooma did not have any playground. All DIETs under study have a sportsroom but not much equipment was there in the sports-room. Canteen was almost always was not able to cater to the needs of the student-teachers, teacher-educators and the administrative staff. Laboratories were either not present and if present were ill maintained and usually not used. Reading rooms were not present for the student-teachers to study while they were in the DIETs. Toilets, though present in sufficient number in most of the DIETs, were ill maintained and were not clean. Toilets for the handicapped were not present. Some teaching-aids were there in the DIETs but these too were ill maintained and almost never used. Computers were very less in number as compared to the strength of the student-teachers of the institute. Common rooms for girls and boys and music room were not found in any of the DIETs under the study.
- Very few books have been added to the library of the DIETs during 2012-14 however no new books have been added to the library of DIET, Karkardooma.
- There were a few teaching-learning available in the DIETs and some of them were in a non-functional state.
- No scholarships were being offered by the DIETs to its student-teachers.
- The infrastructure of the DIETs was not differently-abled friendly.
- There was a shortage of staff, both academic and administrative, in all the DIETs under the study. The number of student-teachers has increased

remarkably in the past few years, without any corresponding increase in the staff.

- The grant-in-aid has increased in all the DIETs in the past three years at the same time the expenditure on the salaries and on contingencies has increased. However, the expenditure on the programmes and faculty development has decreased in the past three years.
- In the past three years, the percentage of the student-teachers obtaining first divisions has decreased in all the DIETs under the study.
- Co-curricular activities were being regularly held in the institutes, however, not many inter-DIET competitions were being held.
- From the SWOT analyses conducted on the principals, the strength of the institutes was found to be highly qualified and dedicated staff and the co-operation among the members of the institute, the bright and hardworking student-teachers of the institute and the prevalent democratic atmosphere of the institute along with some of the facilities available. The weakness of the institute in view of the principals were the inadequate infrastructure, funds, space, autonomy and proper work conditions for the staff, shortage of staff, inefficiency of the office staff, recruitment on contractual basis, and differently-abled unfriendly buildings of the DIETs. Opportunities for the institute were considered to be in improving the linkages, sharing of resources and experimentation with the Public-Private Partnership model. The major threats for the institute as outlined by the principals were lack of autonomy, staff and resources along with elaborate administrative hierarchy and its style of functioning and 402 unfavourable working conditions for the staff, lack of good.
- From the responses of the heads/teachers-in-charge, it was evident that in their perception, Satisfaction with Quality, Customer Orientation, Client Education, Innovation and Staff were the areas which were stronger whereas Participation, Community Involvement and Linkages were the areas which were weaker.
- From the analysis of the interview carried out with the teachers-in-charge of the B.El.Ed. Colleges of Delhi University, it was found that the teachers-in-

charge consider the practicum and hands on experience, qualified, motivated and energetic faculty, infrastructure, technology, activities, sensitivity towards the children, and interdisciplinary nature of curriculum as the important quality parameters in a Teacher Education Institute, understanding of the objectives of DIET.

- From the responses of the student-teachers, it was evident that in their perception, Objectives and Goals, Teaching-learning process, Relationships, School Experience Programme, Admission Procedure, Leadership, Institute, and Student-teachers were the areas which were stronger whereas Co-curricular activities, Office staff, Linkages, Evaluation Process, Timetable, Management Process, and Facilities/Material Resources were the areas which were weaker.

Kaur, H. (2012) in his thesis **"Growth and development of teacher education programme in Punjab with reference to expansion, quality and societal needs"** revealed that:

- This number was only 633 upto 1995 but it increased more than ten times after that which shows a - 232 - very fast growth of secondary teacher education in last fifteen years. Thus we can say that after the initiation of process of liberalization of the Indian economy 1991 proliferation of secondary teacher education institutions has taken place on alarge scale in the post economic reforms period.
- The comparison of sanctioned strength in Government and nongovernment institutions shows that in case of non-government institutions the growth rate has been much higher as compared to the government institutions of secondary teacher education after independence. This indicates the fact that Government has not spent the required money on secondary teacher education institutions instead it has allowed the private initiative in the field of secondary teacher education.
- The secondary data found that CTEs (Colleges of Teacher Education) and IASEs (Institutes of Advanced Studies in Education) sponsored by the Central Government have not been evenly distributed over different states of the country. Many bigger states with comparatively larger number of districts

like Bihar, Madhya Pradesh, Tamil Nadu and Uttar Pradesh have been given less number of CTE's and IASE's as compared to other states with comparatively small number of districts like Andhra Pradesh, Assam, Gujarat, Karnataka and Rajasthan. - 233 - Moreover the states of Arunachal Pradesh, Goa, Chattisgarh, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, etc. do not have any IASE, whereas there was no CTE in Arunachal Pradesh, Goa, Haryana, Mizoram, Sikkim, Pondicherry, etc. Thus the Government has not taken into account the equitable distribution of secondary teacher education institutions which further contribute to the inequality in educational development of the country.

- Many disparities have been found in the data presented in the Statistical Abstracts of Punjab and the NCTE's annual reports and other publications. Since the data presented by the Government of Punjab in the statistical abstracts of Punjab and in its annual reporting by NCTE was used by many researchers and organization, therefore there was a need to collect verify and present the authentic data in these documents.

Gupta. S. (2014) in his study **"A Study of Total Quality Management Practices in Teacher Education Institutions"** found that: -

- The weak office management and examination system indicates that due to inefficient evaluation and assessment procedure and unsystematic work procedures of the offices, the teaching and the administrative staff do not gain satisfaction and also do not enjoy good relationships with each other.
- Thus, it can be interpreted that inputs were available but it was not harnessed fully through process conversion due to which both the types of teacher education institutions, aided as well as self-financing were low in product indicators.
- Good pay was rated as the most important aspect of job satisfaction. Job satisfaction was low because an overwhelming number of teacher educators perceived that very little opportunity was there for growth and development in case of self-finance institutions but in aided colleges of education low job satisfaction can be due to understaffing. Due to it, some of the teachers may

be overloaded and some may be under loaded. This overloading and under loading lead to trifles among teacher educators. As a result of which they want to do only the assigned tasks and that to with unwillingness. This unwillingness leads to frustration, low performance and hence low job satisfaction. Apart from this, the monotonous working patterns may also be one of the factors.

- Good interpersonal relationships with friendly workmates were also considered significant. All the teacher education institutions were weak in both the areas.
- It was generally believed that in an environment of rigid rules, tedious procedures and tight regulations teacher educator initiative and enthusiasm would have been nipped in the bud and they may not exhibit the needed enterprise while confronting problems head on.
- These rules may also not permit employees to come out of the boundaries and innovate using their latent potential fully.
- Innovative abilities of employees were not nurtured by the management carefully so as to enable them to realize their potential fully in the service of organization.
- Teacher educators were not permitted to experiment with new ideas and methods every time and not given a due recognition and reward at the departmental level.
- Relationship was weak because interpersonal relations were not reflected through informal associations. Associations to protect own sectional interests, resulting into cliques, thereby creating a specific control-oriented climate as contrasted with another situation where people nurture informal relationships with their superiors/ supervisors reflecting a dependent- relationship.
- It was found that total quality management practices were not properly practiced and were lacking in most of the areas as a result quality performance was low in most of the teacher education institutions.
- Out of 11 HODs, 4 of them contended that the teacher education institutions have a very clear stated vision and mission to guide the instructional

functioning which was well within the framework of National policy and addresses the stakeholder requirement.

- 4 HOD opined that the vision and mission statement was satisfactory and 3 expresses that in their institution there was total negligence on the formulation of the statement of vision and mission.
- Direction to the effective functioning of the institution was completely lacking and hence inappropriate capability in maintaining appropriate linkages among different components.
- Out of 11 HODs, 4 HOD opined that the infrastructure and learning resources were good in the colleges of education.
- Other 4 HOD contended that the institutions can do better, 2 HOD opined that teacher education institutions have to improve a lot and only 1 HOD found that the infrastructure and learning resource was satisfactory.
- Most Of them opined that Teacher education institutions requires a more advanced and updated physical infrastructure designed to implement all components of the programme effectively keeping in consideration the strength of the staff and the students.
- Out of 11 HOD, 3 of them have rated their institution as good where as 4 of them rated as satisfactory and the rest 4 as can do better.
- Most of the HODs of teacher education institutions opined that their institutions lack an effective internal quality management that demonstrates dealing with the processes, through team work, involving people from all units and its levels, improvements and training in management systems, identification and elimination of barriers to teaching- learning and constant review and analysis of data for development.
- Participatory management procedures and creative governance of human and material resources which were important areas that reflects the quality of an institution and academic and administrative planning was totally a neglected area.
- It was found that on all the key areas the quality performance of teacher education institutions with respect to total quality management practices was either satisfactory or needs improvement.

Mukhopadhyay (2014) in **"Quality in Teacher Education – Various Parameters and Effective Quality Management"** discussed the important role of quality management in teacher education, which was a program to integrate all these quality components to ensure accountability, commitment and credibility of the institution enabling it to render a customer friendly service.

Shaikh, T. (2014) in '**A study of total quality management of D.Ed. colleges under Dharwad DIET'** concluded that there are still many educational institutions that attempt a variety of quality improvement efforts and find that they have not achieved any or most of the expected outcomes.

Gupta (2015) in **"A Study of Total Quality Management Practices in Teacher Education Institutions"** studied the application and analysis of total quality management in colleges of education/teacher education Institutions of Lucknow city. The total quality management was explored by covering 11 aspects such as principal as a leader, quality of teacher, linkages and interface, students, co-curricular activities, teaching, office management, relationships, material resource, examination and job satisfaction through Mukhopadhyays's Institutional Profile questionnaire. The study revealed that there was a problem of brain drain of teachers along with improvement in management techniques, infrastructure, examination and objectives of B.Ed. Program and recommended that the concerned authorities should take serious notice of the character of colleges of education/teacher education institutions in the development of teacher education and implement concrete measures for its improvement.

Naaz, I. (2015) in his paper **"Total Quality Management in Teacher Education"** had found that:

- Most of the teachers in government aided institutions and self-financing institutions, though they maintained quality in teaching did not have job satisfaction.
- Around 90% of pre-service teacher education institutions were in the non-Government sector and most of the states of the Eastern and North-Eastern Region of the country were facing acute shortage of institutional capacity of teacher preparation in relation to the demand.

- Teacher education should be a part of the higher education system. The duration of programme of teacher education needs to be enhanced, in keeping with the recommendations of the Education Commssion (1966), the implementation of which was long overdue.

Panneer, M., & Karpaga Kumaravel, R. (2015) in their study 'Total Quality Management (TQM) in the elementary schools of Pudukottai district' tried to find out the strengths and weakness of the different components of the Total Quality Management in the elementary schools of Pudukottai district using Mukhopadhyay's Institutional Profile Questionnaire (MIPQ), and they concluded that the schools are very weak in the areas of Leadership, Linkage and interface communication with the environment, Co-curricular activities, Teaching quality, Office management, Relationship, Material resources, and Examination purposefulness. They suggested that the institution has to focus on these areas and improve upon for the quality education.

Sen, N., & Gupta, S. (2015) conducted **'A Study of Total Quality Management Practices in Teacher Education Institutions'** using Mukhopadhayas's Institutional Profile Questionnaire which was administered on teacher educators and also quality indicator tool developed by the NAAC‑COL team administered on Head of the Department of B.Ed program. They recommended that the concerned authorities should take serious notice of the character of colleges of education/teacher education institutions in the development of teacher education and implement concrete measures for its improvement.

Jyoti, A. (2016) in his work **"Teacher Education Programmes in Himachal Pradesh An evaluation Study"** found that:

- Out of 10 colleges only 5 colleges were following norms of NCTE and affiliating university in recruitment of academic staff. 3 colleges out of total sampled colleges were partially fulfilling the norms in case of staff recruitment. While in case of 245 physical infrastructure, admission criteria and curriculum transaction all colleges were following norms of NCTE.
- It was found that all the sampled B.Ed. colleges have adequate buildings. They have adequate number of Classrooms and separate toilets for boys, girls

and staff. Each College has a principal office, staff room, multipurpose hall, office and Library. Water Supply, Electricity Supply was also adequate in all teacher training institutions.

- It was found that 20 per cent of institutions lack the facility of laboratories, playground and canteen as observed by the investigator. But all of the Managements claimed that they have adequate facility of laboratories and most of the teachers and pupil teachers were also of the view that laboratories were adequate in their colleges. All Managements, teachers and students (99.5 per cent) think that they have adequate facility of Play Ground. In case of canteen most of the (90 per cent) Managements claimed that they have canteens and more than three fourth of teacher educators (80 per cent) and almost all pupil teachers find canteen facilities adequate.
- More than half of the colleges (60 per cent) were not having Principals appointed as per the NCTE norms; however officiating principals were discharging their duties in all these colleges. When inquired about the non-availability of the regular principals, most of the Management responded that there was no-availability of eligible and suitable candidates for appointment as Regular Principal as per NCTE norms.
- In 40 per cent colleges, assistant to librarian were appointed. Only half number of colleges was having office cum typist. A few colleges (30 per cent) has also appointed non-teaching staff like manager Supervisor, cashier etc.
- 80 per cent of Managements claimed that they were recruiting staff according to norms of NCTE and Affiliating University i.e. Himachal Pradesh University. But only 43.33 per cent teachers agree that these recruitments were done according to set norms of NCTE.
- Managements of more than half number of colleges claimed that they were paying salary to their staff as per government rules.
- In all colleges the teacher educators were getting casual leaves, more than half number of colleges were providing medical leave and nearly half number of colleges were providing earned leave. Only 19 per cent of teachers were getting Medical leave and a few colleges have the provision of compensatory

leave. Some colleges have provision of others leave also. One college out of 10 colleges was providing maternity leave to its female staff for 3 months with full salary and next 2 months without salary.

- It was found that out of the total appointed staff 17.5 per cent staff was Ph.D. and 64.28 per cent of Ph.D. staff was regular. 24 per cent teacher educators were NET qualified and 75 per cent of them have regular appointment from university. Most of the staff (52.5 per cent) in the sampled colleges was with qualification M.Ed. with M.Phil. Degree. Out of which only 35.71 per cent teachers were regular.
- Findings shows that all the sampled private B.Ed. colleges were having overhead projector, Slide projector, Television, Audio video recorder, Educational CDs, Film Projector and Computers. All the sampled teachers claimed that they were using these audio-visual aids during teaching learning process.
- More than half number of teacher training institutions, i.e.70 per cent of the total were having LCD and CD players as audio visual aids in their college. 70 per cent of teachers were using LCDs and 67.50 per cent students supported their response. 86.66 per cent teacher educators claimed that they were using C D players and 79.25 per cent of pupil teachers admitted this.
- It was found that in all colleges, visual aids like Display Boards, Flannel Boards, White Boards, Bulletin Boards, Chalk Boards, Charts, Pictures, Maps, Models, Globe, Printed Material like periodicals, books, newspapers, journals etc. were available and being used effectively.
- Graphics Board were found displayed in 70 per cent of colleges. Out of total teachers 76.6 per cent use graphics board as teaching aid but only 30.75 per cent pupil teachers verified this information.
- In privately managed secondary teacher training institutions, Text-Book Method was used by 33.3 per cent of sampled teacher educators and almost same number of (30 per cent) pupil teachers verified this.
- 100 per cent of teachers claimed that they were using teaching methods like Lecture Method, Discussion, Quiz, Debate, Field Trips etc. and making

students to prepare reports on given topics. More than 90 per cent of students supported these results.

- All pupil teachers agreed that before practicing teaching, theory was taught to them followed by demonstration by their teacher educators. 100 per cent of them agreed that for preparation of pupil teachers for practice teaching various methods were used like simulated teaching, micro teaching, lesson planning in real classroom situation and observation of lessons taught by their fellow pupil teachers.81.25per cent of pupil teachers state that they do Construction of test items and more than 70 per cent prepare tutorial essays .75 per cent of students also claimed that they prepare teaching aids during Teaching practice.
- It was found that all the teacher educators and pupil teachers (100%) organise and participate in co-curricular activities like Talent Search Competition, various Social Camps, Cultural Functions, Sports meet, Annual function and Educational Tours. Almost all students agree that Drama, Debate and other literary activities were also being organized in their institutions.
- It was found that in 100 per cent of colleges there was facility of games like badminton, hockey, cricket, athletic meet, skipping, and Ludo and carom board. In more than 90 per cent of colleges students can play football and chess but only 57.75 per cent of colleges have the facility of table tennis.
- Half of the teacher educator's take weekly test and almost same percentage of students admitted this. Most of the teachers also take monthly tests. Terminal exams and session ending exams were the main mode of the evaluation of pupil teacher's outcome.
- Out of total staff from 10 colleges 34.34 per cent teachers have attended refresher or orientation programmes as reported by Management.
- Almost all teacher educators agreed that the main objectives of B.Ed. course were to provide relevant teaching skills to trainees, developing positive attitude in them towards teaching profession and making them to realise that teaching learning was a never-ending process.

- All of them reported that to prepare students for self-employment and developing skills and efficiency in teaching were also one of the objectives of this course.
- All of the sampled teacher educators agree that to develop knowledge and insight into prospective teachers and to make them learn and make use of their environment in the process of growing were also objectives of B.Ed. course.
- 50 per cent of the teachers agreed that preparing students for employment was also one of the objectives of B.Ed. courses.
- 70 per cent of teacher educators admitted that this Course prepare individual for employment and more than 80 per cent were of the view that preparing individuals for self-employment was also one of the objectives of secondary teacher training.
- Out of total teacher educators 30 per cent of teachers reported that they were satisfied with the functioning of privately managed secondary teacher training institutions whereas 21 (70per cent) teachers admitted that they were not satisfied with the functioning of privately managed B.Ed. colleges.
- Some per centage of contribution was given to the students for organizing educational tours, picnics etc. Few Managements committed cash incentives as prizes to the students who would acquire top position in merit in the final examination.
- 60 per cent Management were facing problems in appointing capable staff in their institution. They reported that they were facing the problem of non-availability of staff for teaching specialized subject. They were not getting eligible candidates for teaching some specialized subjects. If candidates for these specialized subjects come, they don't fulfil the conditions of UGC like NET and essential experience.
- Most of the teachers (93.33 per cent) were not getting salary as per UGC norms even after fulfilling all eligibility criteria. Half of them (53.33 per cent) further reported that there was no transparency with regard to managerial aspects of institutions. There were some codes of conducts decided by some institutions which were not uniformly applicable to all.

- Only 11.5 per cent of students think that the Fee structure for this course was high. They also have to bear expenses like spending money on transport, stationary, books, models, charts etc. they reported that for different assignment they have to bear extra expenses. Management charges unnecessary fines to them.

Biswas, R. (2018) studied under the title **"Role of Vocational and Technical Education and Skill Development in the empowerment of the Muslim women in West Bengal".** The objective of the study was –

- To identify the basic problems in the way of empowering the Muslim women.
- To identify the educational and social economic status of the Muslim women in West Bengal.
- To analyze importance of Vocational and technical education and training in women empowerment.

The investigator collected the data from various books, research articles, magazines, research journal, E- journal, report of the Vocational and Technical Educational and Training, Department of West Bengal. Major findings were- Vocational and Technical Education at 9th - 12th standards introduced in a school but the Madrasas were still not included in this scheme. Therefore, a large number of students in Madrasas were still deprived of the opportunities of accessing Vocational and Technical Education at secondary and Higher secondary levels. Vocational and Technical Education and Training colleges in the State do not have the provision for providing education to the women separately.

Pankaj, V. (2018) in his study **"Total quality management in secondary teacher training institutions of Punjab"** found out that: -

- It was found to be significantly higher than those of government-aided (M=16.60) and self-financed (M=9.79) teacher training institutions on the principal as leader component of TQM, it indicates that teachers working in government teacher training institutions found their principals as better leaders as compared to the teachers working in government-aided and self-financed teacher training institutions. The teachers working in self-financed teacher training institutions found their principals worst as leader.

- It was found to be significantly higher than those of government-aided (M=18.43) and self-financed (M=8.78) teacher training institutions on the Teacher Quality component of TQM, it indicates that teachers working in government teacher training institutions found the quality of teachers better in their institution as compared to the teachers working in government-aided 0 5 10 15 20 25 Govt. Govt. Aided Govt. Self-Financed Govt. Aided Self-Financed 20.70 16.60 20.70 9.79 16.60 9.79 Mean Score 128 and self-financed teacher training institutions. The teachers working in self-financed teacher training institutions found the quality of teachers' worst.
- It was found to be significantly higher than those of government-aided (M=16.07) and self-financed (M=5.61) teacher 0 5 10 15 20 25 Govt. Govt. Aided Govt. Self-Financed Govt. Aided Self-Financed 23.03 18.43 23.03 8.78 18.43 8.78 Mean Score 129 training institutions on the Linkage and Interface component of TQM, it indicates that teachers working in government teacher training institutions found their institutions having better linkage with other institutions and alumni as compared to the teachers working in government-aided and self-financed teacher training institutions. The teachers working in self-financed teacher training institutions found their institution having poorest linkage of all.
- It was found to be significantly higher than those of government-aided (M=13.27) and self-financed (M=7.20) teacher training institutions on the student's quality component of TQM, it indicates that teachers working in government teacher training institutions found the students having better academic and non-academic qualities as compared to the teachers working in government-aided and self-financed teacher training institutions. The teachers working in self-financed teacher training institutions found the students having worst academic and non-academic qualities.
- It was found to be significantly higher than those of government-aided (M=17.73) and self-financed (M=7.15) teacher training institutions on the Co-curricular Activities component of TQM, it indicates that teachers working in government teacher training institutions found their institutions carrying out the Co-curricular Activities better as compared to the teachers

working in government-aided and self-financed teacher training institutions. The teachers working in self-financed teacher training institutions found the level of Co-curricular Activities in their institutions worst.

- It was found to be significantly higher than those of government-aided (M=16.40) and self-financed (M=7.22) teacher training institutions on the Teaching component of TQM, it indicates that teachers working in government teacher training institutions found the quality of Teaching in their institutions better as compared to the teachers working in government-aided and self-financed teacher training institutions. The teachers working in self-financed teacher training institutions found the quality of Teaching in their institutions worst.
- It was found to be significantly higher than those of government-aided (M=17.50) and self-financed (M=4.48) teacher training institutions on the Office Management component of TQM, it indicates that teachers working in government teacher training institutions found the Office Management of their institutions better as compared to the teachers working in government-aided and self-financed teacher training institutions. The teachers working in self-financed teacher training institutions found the Office Management of their institutions worst.
- It was found to be significantly higher than those of government-aided (M=16.03) and self-financed (M=6.29) teacher training institutions on the Relationships component of TQM, it indicates that teachers working in government teacher training institutions found the relationship and corporate life of their institution better as compared to the teachers working in government-aided and self-financed teacher training institutions. The teachers working in self-financed teacher training institutions found the relationships and corporate life of their institution worst.
- It was found to be significantly higher than those of government-aided (M=16.97) and self-financed (M=7.42) teacher training institutions on the Material Resources component of TQM, it indicates that teachers working in government teacher training institutions found their institutions having better Material Resources as compared to the teachers working in government-aided

and self-financed teacher training institutions. The teachers working in self-financed teacher training institutions found their institution worst in Material Resources.

- It was found to be significantly higher than those of government-aided (M=17.77) and self-financed (M=5.56) teacher training institutions on the Examination component of TQM, it indicates that teachers working in government teacher training institutions found purposefulness and methodology of Examination as better leaders as compared to the teachers working in government-aided and self-financed teacher training institutions. The teachers working in self-financed teacher training institutions found the examination in their institutions of poor methodology and purposefulness.
- It was found to be significantly higher than those of government-aided (M=15.77) and self-financed (M=7.78) teacher training institutions on the job Satisfaction component of TQM, it indicates that teachers working in government teacher training institutions found higher job Satisfaction in their institutions as compared to the teachers working in government aided and self-financed teacher training institutions. The teachers working in self-financed teacher training institutions found the job Satisfaction in their institutions worst.
- It was showed that 53(58.89%) of students of aided colleges, 46(51.11%) in government colleges and 225(62.50%) in self-financed colleges reported that encouragement of students to participate in co-curricular activities was a weak area. The proportion of students in government colleges was found to be lesser than that of students in self-financed colleges.
- It was found that 64 (71.11%) of students of aided colleges, 37 (41.11%) in government colleges and 189 (52.50%) in self-financed colleges reported that maintenance of strict discipline in the institution was a weak area. The proportion of students in aided colleges was found to be more than that of students in government and self-financed colleges.
- It was found that 38 (42.22%) of students of aided colleges, 37 (41.11%) in government colleges and 190 (52.78%) in self-financed colleges reported that appreciation and recognition to good behaviour in the institution was a weak

area. The proportion of students in self-financed colleges was found to be more than that of students in government colleges and aided colleges.

- It was found that 43 (47.78%) of students of aided colleges, 41 (45.56%) in government colleges and 196 (54.44%) in self-financed colleges reported that overall institutions were weak. The proportion of students reporting this was statistically at par with each other.

Sandip, D. G. (2018) in his study **"Development and effectiveness of total quality management design for teacher training colleges"** found that:

- The quality indicator "Co-curricular aspects" and "Infrastructure and learning Resources" were very strong in teacher training colleges.
- The quality indicator "Teaching Learning and Evaluation" was very weak in teacher training colleges.
- The quality indicator areas Principal as leader, Teaching Quality, Co-curricular Activities, Office Management, Material Recourses and Job Satisfaction were strong.
- The quality indicator areas Linkage and Interface, Students Quality, Teaching Quality, Relationships and Examinations were weak.
- The Total Quality Management Design (TQMD) programme was very effective to enhance the academic achievement of student-teachers.

Sarangi (2018) in **"Impact of college autonomy on quality in higher education as perceived by teachers"** adapted Mukhopadhyay's Institutional Profile Questionnaire to investigate the impact of college autonomy on quality in higher education in terms of teachers' perception relating to their satisfaction with principal as a leader, quality of teacher, linkages and interface, students, cocurricular activities, teaching, office management, relationships, material resource, examination and job satisfaction. The study revealed that teachers in autonomous and non-autonomous colleges did not enjoy their job; principals had less confidence on the faculty; and the facilities available were not adequate for the teachers. Studies conducted abroad: An In-depth Evaluation Study of the In-service Teacher Training.

Sunil, K. (2018) in his study **"Implementation of inclusive education of the disabled at secondary stage IEDSS scheme an evaluative study of Haryana"** found that:

- It was found that all the resource rooms of selected blocks had the basic facilities for the students with disabilities i.e. black board or green board, chalk or marker, drinking water, seating arrangement, computer, fan and light. 87.50 per cent resource rooms had the availability of electricity, 75.00 per cent resource rooms had the facilities of ramps with railing and 62.50 per cent resource rooms were fully ventilated.
- It was found that hearing aids, hearing machine, models and charts were found in all the resource rooms of the selected blocks. The sign language board and picture boards were found in 75.00 per cent resource rooms, further mirror was found in 62.50 per cent resource rooms and sign flash cards were found in 12.50 per cent resource rooms.
- It was found that Teaching Learning Materials (TLM) for different concept formation, grain, rice, sand, pictorial charts, calculator, marbles, colour strips, transport kit, flash cards, slanal board were found in all the resource rooms of selected blocks . The availability of clay of different colours and measurement 176 kit was found in 75.00 per cent resource rooms. The availability of sign boards was found in 62.50 per cent resource rooms. communication book, talking books and tape recorder were not found in any resource room of selected blocks.
- It was found that facilities of different types of shapes, big alphabet charts and models were available in all the resource rooms. 50.00 per cent resource rooms had the facilities of mathematics kit but some important resource materials such as linguistic kit, tap recorder, writing practice books (Hindi) and writing practice books (English) were not found in any resource room of selected blocks.
- During the study it was found that there was not a single block in all selected district where the Students with Disabilities covered under HBE (Home Based Education) through the IEDSS Scheme.
- It was found that during the session 2013-14, one boy and two girls in the block Gohana, three boys and two girls in the block Ganaur, two boys and three girls in block Siwan, two boys and one girl in Kaithal, four boys and two girls in block Baund Kalan, four boys and five girls in block Charkhi

Dadri, two boys and three girls in block Narnaul and three boys and two girls in block Mehandergarh had been taken benefit of the resource rooms.

- The strength of students with disabilities in Ganour and Gohana blocks of Sonipat district, were 15 boys and 12 girls with low vision, 02 boys and 03 girls with blindness, 05 boys and 08 girls with hearing impairment, 17 boys and 08 girls with speech impairment, 25 boys and 22 girls with orthopedically handicapped, 25 boys and 20 girls with mental retardation, 03 boys and 01 girl with multiple disabilities, 01 boy and 01 girl with cerebral palsy, 06 boys and 14 girls with learning disabilities. It was also found that there was not a single student with autism spectrum disorder and mental illness in any selected block of Sonipat district.
- The strength of students with disabilities in Siwan and Kaithal blocks of Kaithal district were 27 boys and 106 girls with low vision, 06 boys and 02 girls with hearing impairment, 06 boys and 01 girl with speech impairment, 25 boys and 06 girls with orthopedically handicapped, 04 boys and 04 girls with mental retardation, no student with multiple disabilities, 01 boy with cerebral palsy, 02 girls with learning disabilities. It was also found that there was not a single student with blindness, autism spectrum disorder and mental illness in any selected block of Kaithal district.
- It was found that position of special teachers in all the blocks of selected districts, were sanctioned for special teachers within one of the specific categories i.e. visually impairment, hearing impairment and mentally retardation at block level. There were only two blocks Gohana and Siwan in all the selected districts where 100 per cent posts of special teachers were filled up under the IEDSS Scheme. In Narnaul block 66.66 per cent posts of special teachers were filled up and 33.33 per cent posts of special teachers were vacant under the IEDSS Scheme. Further, the figure reveals that only 33.33 per cent posts of special teachers were filled up in the Ganaur, kaithal, Baund Kalan, Charkhi Dadri and Mehandergarh blocks of the selected districts and 66.66 posts of special teachers were remain vacant in these blocks under the IEDSS scheme. During the study it was also found that there was not even a single block in all the selected districts where the all three

posts category wise i.e. visually impairment, hearing impairment and mentally retardation of special teachers were appointed as per the norms of IEDSS scheme.

- It was found that authorities knew about the concept of inclusive education. During the study it was also found that also knew about the aims and objectives of inclusive education especially with reference students with disabilities.
- It was found that all the authorities accepted that the teacher student ratio was not according to the norms of the IEDSS scheme. However, as per the norms of IEDSS scheme the teacher student ratio was 1:5. But actually the student teacher ratio was 1:19 secondary stage beside this all the special teachers and resource teachers under IEDSS scheme and SSA were working collectively from class 1st to 12th in Haryana then student teacher ratio was approximately 1:103.
- It was found that all the authorities accepted that there was not any autonomous body set up for the effective implementation of the IEDSS scheme. However, there was provision of autonomous body set up for the effective implementation of the IEDSS scheme.
- It was found that all the authorities accepted that training programmes were not organized for authorities, special teachers, general teachers and parents of students with disabilities under the IEDSS scheme. During the study, it was also found that some training programmes were organized for general teachers and special teachers up to elementary level under Sarva Shiksha Abhiyan.
- It was found that all the authorities accepted that workshops were not organized under the IEDSS scheme. During the study, it was also found that there was proper provision of workshops on curriculum adaptation, supplementary material and self- learning materials under the IEDSS scheme.
- All the authorities accepted that they provided aids and appliances from time to time according to the needs of students with disabilities under the IEDSS scheme. It was also observed that all the aids and appliances provided to students with disabilities after the medical assessment camp.

- It was found that all the authorities accepted that expenditure was not accomplished on research and development under the IEDSS scheme. However, there was a provision of expenditure for research and development under the IEDSS scheme.
- It was found that all the authorities accepted that expenditure was not accomplished on identification and assessment of students with disabilities under the IEDSS scheme. But there was a provision of expenditure for identification and assessment of students with disabilities as per the norms of IEDSS scheme.
- It was found that all the authorities accepted that external support services were not provided to students with disabilities under the IEDSS scheme. During the study it was found that external supports services like medical experts, psychologist, physiotherapist, mobility instructor and speech therapist were provided once in a year during the medical assessment camp.
- It was found that all the authorities accepted that specific programme was not organized regarding girl students with disabilities under the IEDSS scheme. However, during the minute observation it was found that stipend provided to all the girl students with disabilities under the IEDSS scheme.
- It was found that during the session 2013-14, the authorities monitored four identification and educational need programmes in Sonipat, five in Kaithal, six in Bhiwani and five in Mehendergarh district. During the session 2014-15, the authorities monitored five identification and educational needs programme in Sonipat, six in Kaithal, four in Bhiwani and five in Mehendergarh district. 185 During the session 2015-16, the authorities monitored five identification and educational needs programme in Sonipat, four in Kaithal, six in Bhiwani and four in Mehendergarh district. During the session 2016-17, the authorities monitored the six identification and educational needs programme in Sonipat, four in Kaithal, five in Bhiwani and six in Mehendergarh district.
- 100 per cent authorities admitted that the problem occurred due to the improper provision of all supportive services like medical experts,

psychologist, physiotherapist, mobility instructor and speech therapist for students with disabilities under the IEDSS scheme.

- All the authorities suggested to ensure the role and responsibilities of the administration along with local political leader regarding the education of students with disabilities as the local political leaders can strongly represent their problems in front of the government.
- It was found that all the special teachers accepted that they did not attend any in-service training regarding students with disabilities at secondary stage under the IEDSS scheme, however, all the special teachers accepted that they had attended training programme regarding students with disabilities up to elementary level under Sarve Shiksha Abhiyan.
- It was found that majority (68.75 per cent) of the special teachers accepted that parents did not follow their suggestions regarding the students with disabilities. During the study it was also found that the parents were quite poor and busy to earn their livelihood. They have hardly time to follow the suggestions regarding students with disabilities.
- It was found that all the special teachers accepted that they adopted some specific teaching strategies during the academic support of students with disabilities. It was also found that after minute observation, special teachers used different types of teaching strategies like oral instruction, diagrams, graphics presentation, model instructional practices, by parts learning, prompting strategies and regular feedback.
- It was found that all the special teachers accepted that HBSE did not issue appropriate order and notification for alternative mode of examination regarding students with disabilities. During the study it was also found that except the board classes the general teachers adopted alternative mode of examination for students with disabilities at their own level.
- It was found that all the special teachers accepted that they participating in organizing the co-curricular activities for students with disabilities like sports, cultural, drawing and painting activities. During the deep observation it was also found that special teachers participated in organizing the co-curricular activities at block level, district level and state level.

- It was found that 87.50 per cent special teachers admitted that attitude of general teachers was negative towards the education of students with disabilities as the general teachers thought that all the students with disabilities were the total responsibility of special teachers.
- All the special teachers suggested that well trained special teachers should be appointed at school level on regular basis for effective and proper implementation of Inclusive Education of the Disabled at Secondary Stage (IEDSS) scheme.
- It was found that majority (58.75 per cent) of the general teachers accepted that special teacher visited their school within month. During the study it was also observed that special teacher visited the school in a huge gap as special teachers were not appointed according to the norms of IEDSS scheme.
- It was found that most (86.25 per cent) of the general teachers accepted that they did not have sufficient knowledge regarding the use of aids and appliances. A few (13.75) per cent teachers had sufficient knowledge how to use the aids and appliances.
- Majority (59.37 per cent) of the general teachers accepted that parents did not co-operate with them. During the study it was also found that maximum parents of students with disabilities were poor and uneducated and they were busy to earn livelihood.
- It was found that 77.50 per cent parents suggested that assistive devices, aids and appliances of superior quality should be provided to the students with disabilities as per the demand.
- Majority (69.37 per cent) of the students with disabilities accepted that they never visited resource room regarding their academic activities. During the study it was also found that there was only one resource room for all schools at block level which was far away from the schools. So, it was not possible for all students with disabilities to visit regularly the resource room for their academic activities.

Parimal, B. (2021) in his study **"Implementation of vocational training programme in school education of West Bengal"** revealed that the sanctioned secondary schools in West Bengal under CSS-VSE were not properly distributed

according to the total number of Corporations, Municipalities and Blocks of all the districts. Moreover, there were 7, 1, 32 and 8 approved secondary schools respectively under CSS-VSE (NSQF) in Jhargram, Kalimpong, Murshidabad and Paschim Burdwan but there were 9,4,34 and 13 respectively in total number of Corporation, Municipalities and rural blocks in those districts. So, the sanctioned secondary schools of those four districts were less than the total number of Corporation, Municipalities and rural blocks in the same districts.

2.2 Studies conducted Abroad

Schulman (1964) in his doctoral dissertation **'The role of university extension in meeting the in-service education needs of school districts'** 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.

Jennings, P.A. & Greenberg. M.T. (2009) in their paper **"The Prosocial Classroom: Teacher Social and Emotional Competence in Relation to Student and Classroom Outcomes"** found that:

- Socially and emotionally competent teachers have high self-awareness. They recognize their emotions, emotional patterns, tendencies and know how to generate and use emotions such as joy and enthusiasm to motivate learning in themselves and others. They have a realistic understanding of their capabilities and recognize their emotional strengths and weaknesses.
- Socially and emotionally competent teachers also have high social awareness. They know how their emotional expressions affect their interactions with others. Such teachers also recognize and understand the emotion of others. They were able to build strong and supportive relationships through mutual understanding and cooperation and can effectively negotiate solutions to conflict situations.
- Socially and emotionally competent teachers were culturally sensitive, understand that others may have different perspectives than they do, and take this into account in relationships with students, parents and colleagues.

- Socially and emotionally competent teachers exhibit prosocial values and make responsible decisions based on an assessment of factors including how their decisions may affect themselves and others. They respect others and take responsibility for their decisions and actions.
- Socially and emotionally competent teachers know how to manage their emotions and their behavior and also how to manage relationships with others. They can manage their behavior even when emotionally aroused by challenging situations. They can regulate their emotions in healthy ways that facilitate positive classroom outcomes without compromising their health. They effectively set limits firmly, yet respectfully. They also were comfortable with a level of ambiguity and uncertainty that comes from letting students figure things out for themselves.

Modise, M. J. (2010) in his study **"Key aspects of quality assurance in the teaching and training of the South African Police Service in the Northern Cape"** found that:

- Quality assurance in education and training programmes offered by the SAPS was of utmost importance, but was very often neglected or carried out inadequately.
- Quality does not occur by accident, but was planned. It was stressed that Total Quality Management emphasises continuous improvement and can be implemented in a number of settings outside the corporate environment, including education institutions and system of education delivery. It was essentially a matter of continuous improvement and of making processes better. It extends the mindset, involves feedback, depends critically on teamwork and requires vision.
- Quality depends on a common passion for excellence, with everyone contributing to a common effort. Benchmarking was an important process in quality assurance, because it was about analysing the information that enables reference points to be created, that can be used to promote change in the direction that was most likely to lead to improvement.

Brekemans, etc. (2011) in their study **"Teacher Control and Affiliation: Do Students and Teachers Agree?"** showed that teachers and students seem to apply,

at least partially, a different frame of reference when rating how a teacher relates to students in class. It also shows that it was important to make a clear distinction between teachers who overestimate and underestimate themselves for their relationships with students, rather than to just think in terms of correspondence between teacher and student perceptions. Underestimation may stem from a certain degree of modesty, perhaps resulting from the better understanding of the complexity of establishing positive classroom interactions and may function for the teacher as stimulation to inspire him/her to improve classroom interaction. Possible sources for overestimation were self-enhancement in order to keep up a positive self-image and limited ability to reflect accurately on one's practice.

Todorut (2013) in Romania attempts to theoretically conceptualise Total Quality Management in higher education in and concluded that Total Quality Management was inevitably common factor that will shape the strategies of higher educational institutions in their attempt to satisfy various stakeholders including: students, parents, industry and society as a whole.

Fozia, R. (2019) in his study **"A Study of Institutional Assessment of Teacher Education Institutions in Relation to Total Quality Management"** found out that:-

- All indicators have been accepted as strength of teacher education institutions with strong but diverse views of all practitioners which denotes to the presence and practice of all explored quality indicators.
- All explored indicators except Admission related services have been assumed as weakness of teacher education institutions by all practitioners which mean these all areas need improvement in strategic manner.
- Nearly all indicators have been considered as opportunity for teacher education institutions by majority of respondents. This means, if available resources and opportunities were utilized appropriately, they may prove to be strength of teacher education.
- Certain indicators were marked as threat for teacher education with very low responses, which, when profoundly examined showed nothing as a threat or uncontrollable factor but if not controlled, may harm or diminish the quality of teacher education.

- It was found that the institutional vision was an essential guiding document for efficacious and smooth functioning of teacher education programme and accomplishment of aims/developing reflective teachers for school and society. But, due to poor infrastructural resources and financial drawbacks on the part of governing bodies, it becomes difficult to genuinely follow the vision and achieving the aims of teacher education. Further, insufficiency of time duration for application of theoretical and practical inputs was also pointed out by noticeable number of respondents.
- Although, the design of teacher education curriculum has been considered embellished with all necessary ingredients and opportunities for creating an ideational teacher by majority of respondents but noteworthy number of respondents pointed out its structural drawbacks in terms of lack of co relation with real life and institutional flaws in terms of infrastructural and human resources.
- Regarding the content of teacher education curriculum, unequal distribution of theory content and school based practices as well as lack of flexibility in curriculum was pointed out by approx. 36% respondents. Due to more focus on theoretical aspect, the practical aspect of teacher education found to be a formality Long gaps and lack of consideration to the practitioners' views in the revival of curriculum have been observed as major drawbacks in creating quality teachers for the society.
- Involvement of practicing schools in teacher education orientation programme was demanded by approx.7.71% respondents for covering the gap between theory and practice.
- It was found that due to the shortage of good instructional and infrastructural facilities, theoretical components were not practiced or applied in real setting.
- Due to less encouragement/ limitations on the part of governing body and reluctant attitude of teachers towards innovative pedagogical techniques and ICT, theoretical input was found as conventionally transacted.
- Lack of teaching aptitude and inclination towards teaching profession among trainee teachers was also notified by good number of respondents.

- It was found that due to the lack of fervor and passion among prospective teachers, shortage of infrastructural facilities and capable faculty members practical experiences were not influential. Further, self- financing institutions pointed out difficulties in the organization and management of School Experience Programme in various schools.
- Increment in time duration of teacher education programme, especially the duration of SEP and improvement in its preparation was also demanded by majority of respondents.
- It was revealed that due to limited time duration of the programme and shortages of teachers, only few teachers do something innovative to assess all aspects of trainees rigorously and majorly they were assessed in a stereotyped manner.
- Good number of respondents displayed their dissatisfaction towards internal and external performance assessment system as it leads to lenient/ negligent evaluation of trainees.
- The analysis reveals that most of the teachers were professionally sound but were unable to show inspirational behavior to be followed by prospective teachers. Shortage of good study material, lack of freedom to innovate in teaching- learning process and focus on completion of syllabus were seen as, furthermore, flaws in quality teacher education programme.
- Large number of respondents highlighted the shortage, non- availability and improper/ non- functioning of human, material and financial resources in teacher education institutions and considered the higher authorities responsible for the same.
- The analysis discloses paucity of good instructional material in almost all teacher education institutions. Beside this, heavy work load on teachers, poor infrastructural facilities and learning resources as well as ICT phobia among teachers were further observed as subsiding factors in quality management.
- It was found that majority of teachers in self- financing institutions were not satisfied with the procedure followed for faculty recruitment and rewards and incentives given to them for their efforts which leads to the selection of less competent teachers and lousy output.

- It was noticed, in few cases, that Government institutions were following transparent faculty recruitment procedure but the eligibility criteria does not match the requirement of the programme.
- Demand of more competent behavior on the part of leaders/ principals in both types of institutions has been observed in terms of creating quality culture, teamwork and congenial environment in the institutions.
- Due to shortage/ limited number of teachers and heavy work load on them and absence of academic freedom; research and innovative practices were least encouraged in both types of teacher education institutions.
- It was found that a large number of activities were organized in both types of institutions but due to scarcity of resources the purpose of such activities was not achieved.
- It was further found that self- financing institutions involve only local institutions in some activities for building rapport for future SEP programme.
- It was discovered that incidences of drop out were controlled and acceptable to expected limits and the institutions show concern for high pass percentage and make efforts in this direction too but placement of trainees was not observed as a major concern of any type of institution and little efforts e.g. resume construction, workshop on TET, mock interview session, guidance at personal level etc. were made by them. Even, no institution was found with established placement cell for deployment of future teachers.
- Involvement of personal benefits of teachers and higher authorities in obtaining feedback from students instead of rectifying their weaker areas does not fulfill the purpose of this whole process but create untrust among students and teachers.
- Beside organization of unit/ class tests and extra classes for diagnosing learning difficulties and giving remedy, fewer efforts were planned and no established system exist in any institution to check the progress of students.
- Although, it was discerned from the responses that teachers in both types of institutions provide guidance to students at personal level no guidance and counseling body exist in any type of institution for dealing with specific difficulties of pupil- teachers.

- Although, both types of institutions displayed much satisfaction with the administrative functioning of governing body but also gesticulated communication gap between governing body and institutions for smooth functioning of admission formalities.
- It was seen that arrangement and participation of various kinds of co-curricular activities was encouraged but due to insufficient funds, staff and infrastructural facilities, they remain bound with specific occasions or ceremonies.
- They appreciated the internal co- ordination and management system of assigning and monitoring the roles and functions to them for accomplishment of objectives but also pointed incompetent behavior of the authorities in establishing solidarity which causes for unrest and unethical behavior of teachers and pupil- teachers.
- It was further found that all academic and co- academic activities were planned in written beforehand (academic calendar) by both types of institutions but not were executed appropriately due to the scarcity of resources, delay of funds and external interventions of higher authorities.
- During the study, beside high transparency in financial governance, late reimbursement of expenses was proclaimed by Government institutions' teachers.
- Beside internal and external income and expenditure audit, the study revealed some ambiguities on the part of self- financing institutions in terms of financial governance like: insufficiency of funds, unclear fees structure of students admitting through management quota, illegible and non- transparent income- expenditure sources.
- During the study, it was found that self- financing institutions also follow some self- constructed design to assess and control the academic quality of the programme but such efforts were not reported as satisfactory due to poor human tendencies and lack of functional freedom among teachers.
- Although, records and information about institution and students were maintained but an online or open MIS was not found available/ functioning in any institution.

- This was revealed from the study that the performance of teachers in Government institutions was regularly appraised on a self- appraisal form but it requires for transparency and more accountability on the part of teachers and their leaders. This was further revealed that irregular and non- transparent ways of performance appraisal of teachers were adopted by self- financing institutions, which promotes favoritism in these institutions and subsides the quality of teachers and institutions both.
- Regarding job satisfaction, less promotional opportunities, unequal and low salaries of teachers, absence of democratic approach and team work were majorly observed challenges before self- financing institutions' teachers.
- On the other hand, absence of promotional opportunities and less democratic approach were found as major factors for job dissatisfaction among Government institutions' teachers.

Daherman, Y. & Safitri, N. (2022) in their study **"The Effect of Information and Communication Technology as a Learning Resource on the Quality of Student-Teacher Communication at Riau Vocational High School for Integrated Agricultural"** revealed Information and communication technology as a learning resource was in the high category. It affects the quality of student-teacher communication. While communication quality was considered good, it was influenced by information and communication technology. This finding also showed that using information and communication technology (ICT) as a learning resource for the Creative Products and Entrepreneurship subject can increase student communication quality. ICT can assist students in learning and accomplishing their tasks as students use the available learning resources. With the advancement of ICT, limited resources were no longer an issue and students were no longer solely reliant on the teacher's materials.

2.3 Studies conducted in Northeast and Mizoram

Lalhluna (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 – SCERT has no building of its own to carry out the programmes more

smoothly; there was no close co-ordination in its working with the Directorate and the Board of Education, and there was no good library.

Chuaungo, L. (2017) conducted a study on "**Use of ICT for education among B.ed Students and Teachers in Mizoram" (Chapter-1).** It was found that application of ICT for education was far from satisfactory due to a number of problems. Certain suggestions for solving the problems and improving the use of ICT for education were given. Important suggestions include: training and education of teacher-educators and student teachers to make them ICT-empowered teachers; requirement for student teachers to prepare and deliver lessons using ICT tools; availability of adequate ICT facilities and their proper maintenance; training of student teachers and educators in both hardware and software skills; integrating ICTs into the regular-subject teaching–learning process; seeing ICT as or making it a pedagogical tool and not seeing it as or making it a technology device or a 2 Chapter One sophisticated typing tool; and, lastly, making ICT skills at a certain stage a requirement for recruitment of new teachers as well as for all in-service teachers.

Lalchhandami, S. and Malsawmi, H. Dr. (2017) in their study **"Emotional Maturity of the Student Teachers of the Institute of Advanced Study in Education, Aizawl"** found that the overall emotional maturity of student teachers at IASE, Aizawl, at the time of the study falls under the level of extremely emotionally immature; furthermore, it shows there were no significant differences between the emotional maturity of student teachers in relation to gender, educational qualification, and area of specialisation.

Lalremmawii, C. and Zohmingliani, L. (2017) in their work **"An Analysis of the Training Profile of Mathematics Teachers and the Achievements of Secondary School Students in Mathematics within Aizawl City"** found out that private schools had a bad profile in terms of training while government schools had a healthy profile from 70 mathematics teachers selected as a sample, 35 from government schools and 35 from private schools.

Lalremruati, P.C. and Zohmingliani, L. Dr. (2017) in their paper **"Academic and Professional Background of Teachers Teaching Environmental Education at Elementary Level and Environmental Awareness of Students in Elementary Schools within Aizawl City"** found that the majority of environmental education

teachers were untrained and the majority of them were graduates. It was also found that elementary school students had at least a minimal knowledge about the environment and its related problems as environmental education has been introduced as an integral part of the school curriculum from class one. Certain measures for improvement in the teaching of environmental education at elementary schools in Mizoram were given at the end.

Malsawmi, H. and Renthlei, M.L. (2017) in their study **"Professional Ethics and Attitude Towards the Teaching Profession among Secondary School Teachers in Mizoram"** revealed that the majority of secondary school teachers have a favourable perception about practices of professional ethics and that the majority of teachers have a moderate or neutral attitude towards the teaching profession. The findings also reveal a positive significant correlation between professional ethics and attitudes towards the teaching profession. Reasons for the findings and suggestions for better adherence to professional ethics and an improved attitude towards teaching professions were proposed.

Sarah, K. and Malsawmi, H. (2017) in their paper **"Teachers' Perceptions of Selected SSA Interventions and their Implementation" aims to find out teachers"** perceptions of certain selected SSA interventions, specifically, community participation, teacher training, supply of free textbooks, and provisions for children with special needs (CWSN). It was found that community awareness programmes were unsatisfactory, teacher training programmes were adequate, the supply of free textbooks was sufficient, and provisions relating to CWSN were not up to the mark. Few suggestions were put forward for improvement.

2.4 Overview of Present Study in the Background of Studies Reviewed

A review of literature related to the study was done by the scholar in order to know more about the status of researches done and also to understand the findings of other researchers on the topic. For a period of **55 years** spanning from **1967 to 2022,** a total of **37** research works could be traced. Out of these **7** were from outside India and **23** were from India. And the rest **7** studied were found in Mizoram. But no such study has been done in Mizoram and this aroused the curiosity of the researcher as this was a serious case of research gap.

The review of related literature and studies concerning the institutional studies revealed that there was a common trend in India and abroad that the programmes conducted by University Departments, Education Department of various states, SCERT/SIEs, DIETs, CTE and IASE contributed to a qualitative change in the teaching-learning process. Most of the teacher training contributes effectively towards checking wastage. Teaching experience and the aptness of in-service education of teacher-educators can be associated to some extent. Majority of the training respondents were not satisfied with the training programmes. Equipment provided was adequate to a great extent but often poor in quality and inadequately utilized. There was an inadequacy of grants received. Well documented historical study of Teacher Education in Mizoram has not been realised to this effect.

Regarding Total Quality Management, the reviewed literature also revealed that most of the aspects of Total Quality Management was applicable in the field of education in general and has indeed been used for research concerned with qualitative improvement of teacher education institutions and was considered as an urgent need for overhauling the quality of teacher education institutions.

2.4.1 Research gap

Several studies have been done in this area abroad and in other states within India. However, in Mizoram, research studies in this field leave much to be desired. There has been no research study which trace the history, origin and development of teacher education in Mizoram and furthermore there has been no such study with related to Total Quality Management in Mizoram to that effect.

Since there has been no comprehensive study conducted in the state, the present study will possess novelty of the work done in this direction and give much needed insight into the status and possibilities in teacher education within the state. No such research has been known to be done in Mizoram and if anyone wants to this kind of research the present research will provide a scale for future references, thus filling up a very wide research gap.

CHAPTER III
METHODOLOGY OF THE STUDY

The central backbone of a research is the research methodology. A research study needs to be reliable and valid which may either be taken up on a small scale or on a larger scale and such reliability and validity depends largely on the methodology adopted in the collection and analysis of data. After deciding the objectives, one had to plan for the method of selecting sample, the tools and technique to be used, the administration of the tools and collection of required information using the tools. Hence, the present chapter is devoted to the methodology adopted for the present study.

This chapter describes the research methodology that was used to study **"Centrally Sponsored Scheme of Teacher Education and Total Quality Management of Teacher Education Institutions in Mizoram: An Analytical Study".** The methodology of the present study is presented in the following sections:

3.1 Research Design

3.2 Population and Sample

3.3 Tools used

3.4 Data Collection

3.5 Data Analysis

3.1 Research Design:

The present study was historical as well as descriptive in nature. A mixed method research design was used in which both quantitative and qualitative data are used for the study. The topic of the research chosen entailed dual approaches to help explain the problem or phenomenon in a detailed manner. This mixed method involved collection of both qualitative and quantitative data in order to ascertain the research hypotheses or questions framed therein. The qualitative and quantitative data thus collected was analysed and interpreted and further integrated to give a meaningful explanation (Creswell & Creswell, 2018).

The researcher adopted descriptive research method since it was a descriptive study of an exploratory nature, even though it included co-relational elements. According to Best and Kahn (1992) “descriptive research seeks to find answer to questions through the analysis of variable relationship” and accordingly descriptive research is appropriate when a problem does not lend itself to controlled inquiry and experimentation. Albirini (2004) referred descriptive research as survey research which is mainly concerned with “attitudes, opinions, preferences, demographics, practices, and procedures”.

Descriptive research data are usually collected by questionnaire, interview, telephone, or observation according to Gay & Airasian (Albirini, 2004). In order to collect data on the population of the study a quantitative method was adopted wherein survey methods was employed. Accordingly, this research also involved collection of data through questionnaire.

Document Analysis as well as Survey and Descriptive Research Method were used in order to investigate the present problem. The general framework of the study was collecting and analyzing data related to capacity and performance of Teacher Education Institutions in Mizoram. Its major focus was to study and describe the growth and development of Teacher Education Institutions in Mizoram and deals with collection of information through survey of records regarding the origin and development of the Teacher Education Institutions in Mizoram along with Annual Work Plan and Budget as well as the Teacher Education Approval Board (TEAB) minutes. This was supplemented by an information schedule in which checklist and opinionnaire was prepared and administered to the institutional heads (i.e Principals of TEIs and Director in the case of SCERT) regarding implementation of teacher education scheme and the problem faced by them in implementing the different programmes and activities.

Mukhopadhyay’s Institutional Profile Questionnaire (MIPQ) was used as survey tool regarding TQM of teacher education institutions which was developed by M. Mukhopadhyay first published in 2001 in order to find out the Total Quality Management of teacher educators and teacher trainees in the teacher education institutions.

3.2 Population and Sample

According to Best and Kahn (1992) population refers to "any group of individuals that have one or more characteristics in common that are of interest to the researcher". For the present study, the teacher educators of all the Teacher Education Institutions in Mizoram that come under the Centrally Sponsored Scheme of Teacher Education were considered as population. At the time of conducting this study, there were 29 academic staff in SCERT, Mizoram, 14 teacher educators in IASE and 117 teacher educators in the DIETs of Mizoram and no sampling was made and the whole universe was studied. Also, teacher trainees of the Teacher Education Institutions under study were considered as population here and no sampling was done. The actual enrollment of DIETs and IASE during 2022-23 are given in the following table:

Table 3.1

Teacher Trainees enrollment of DIETs and IASE (2022-23)

Sl. No	Name of the Institute	Course/ Program	Enrolment						Total Enrolment
			1st year			2nd year			
			Male	Female	Total	Male	Female	Total	
1	DIET Aizawl	D.El.Ed	39	81	120	44	72	116	236
		B. Ed	25	25	50	20	27	47	97
2	DIET Lunglei	D.El.Ed	30	33	63	23	35	58	121
		B. Ed	24	26	50	15	32	47	97
3	DIET Saiha	D.El.Ed	29	20	49	24	28	52	101
4	DIET Champhai	D.El.Ed	14	36	50	10	28	38	88
5	DIET Kolasib	D.El.Ed	13	37	50	14	31	45	95
6	DIET Serchhip	D.El.Ed	10	40	50	11	36	47	97
7	DIET Lawngtlai	D.El.Ed	14	36	50	15	35	50	100
8	DIET Mamit	D.El.Ed	19	31	50	13	24	37	87
9	IASE	B. Ed	48	86	134	46	82	128	262
		M.Ed	8	21	29	10	28	38	67
	Total		**273**	**472**	**745**	**245**	**458**	**703**	**1448**

Source: Samagra Shiksha Mizoram – Annual Work Plan and Budget 2023-24

Table 3.1 shows the number of teacher trainees enrolled in various Teacher Education Institutions in Mizoram. SCERT Mizoram did not feature in this table as it did not offer D.El.Ed, B.Ed or M.Ed courses.

3.3 Tools used

In order to investigate the problem, the researcher employed the following tools:

For Primary data collection, the following tools were used for obtaining information and collection of data.

a. Information Schedule was prepared in which Opinionnaire and Checklist were prepared and administered to concerned officers responsible for implementing the Centrally Sponsored Scheme of Teacher Education in Mizoram. These are: i) Director, SCERT Mizoram, ii) Principal, IASE Aizawl, iii) Principals of 8 DIETs of Mizoram

b. Office documents: Various documents were collected from SCERT Mizoram and analysed. These documents include – i) Perspective Plan for 2012 – 17 and Annual Work Plan and Budget of Teacher Education in Mizoram which were SCERT Mizoram, IASE Aizawl and 8 DIETs of Mizoram and ii) Teacher Education Approval Board Meeting Minutes and sanction letter for the state of Mizoram from the year 2012 to 2017.

c. Mukhopadhyay's Institutional Profile Questionnaire (MIPQ) was administered to teacher educators and teacher trainees. The MIPQ consists of 110 items to assess teachers' perception relating to their satisfaction with eleven dimensions/sub-areas such as principal as a leader, teacher quality, linkages and interface, students, co-curricular activities, teaching, office management, relationships material resources, examination and job satisfaction.

   The reliability of the tool was checked through test-retest method. The reliability coefficient *r* was 0.999. Therefore, the scale was considered reliable.

For Secondary data collection, UDISE report and Office files related to Centrally Sponsored Scheme of Teacher Education were collected. Document analysis was used in which various documents were interpreted by the investigator to give voice and meaning around the topic of study. The following documents were analyzed-

i. Perspective Plan and Annual Work Plan and Budget

The main document analysed in this study was the Perspective Plan for 2012 – 17 and the corresponding Annual Work Plan and Budget of Teacher Education in Mizoram which included SCERT Mizoram, IASE Aizawl and 8 DIETs of Mizoram. The document analysed was from the year 2012-2013 to 2017-2018. The investigator focusses mostly on the plan and budget in which the whole of the state plan comprising of SCERT Mizoram, 8 DIETs and IASE Aizawl were considered.

ii. TEAB Meeting Minutes and sanction letter

The Teacher Education Approval Board (TEAB) of the Ministry of Human Resources Development (MHRD), Government of India appraised and approved the Annual Work Plan and Budget of Teacher Education of all the states. The investigator focusses on the TEAB minutes from 2012 to 2017 for the state of Mizoram as this was the last minute approved by the then MHRD (now Ministry of Education) before the introduction on Samagra Shiksha in which CSSTE was also subsumed. The sanction letter of the MHRD was also analysed as there could be implications regarding the amount of funds received and the time gap therein which can result in the performance of the institution under study.

3.3.1 Mukhopadhyay's Institutional Profile Questionnaire (MIPQ) as a tool for studying Total Quality Management

Mukhopadhyay's Institutional Profile Questionnaire (MIPQ) developed by Marmar Mukhopadhyay and first published in 2001 in his book 'Total Quality Management in Education' was administered to study Total Quality Management of Teacher Education Institutions in Mizoram, the teacher educators and teacher trainees therein which provided an opportunity of reflection on various aspects of the TEIs so that the image of the TEIs as an institution could be seen and examined.

There were 110 questions in the test to be responded with five options to choose from, each option was assigned a numerical value ranging from 0 to 4. The test items pertain to 11 sub areas or domains which were –

i. Principal as Leader

ii. Teacher Quality

iii. Linkages and Interface

iv. Students

v. Co-curricular Activities

vi. Teaching

vii. Office Management

viii. Relationships

ix. Material Resource

x. Examination

xi. Job Satisfaction

There were five questions or test items for each sub area spread out in a random manner along the questionnaire. The responses were scored with the numerical values assigned for each response. The first five positively keyed items scores were put together, and the result was recorded as "a" in the scoring sheet's last column. After adding up the scores of the final five negatively keyed items, they were recorded as "b" in the final column with a negative sign. For each component, the value of "b" was deducted from "a" to obtain the scores for the various sub-areas. Each sub-area's overall score can be either positive or negative. Then, by dividing the total scores by the number of respondents, the average score in each category was determined. By averaging the average across various areas, an institutional average score point was determined, which serves as a rudimentary cut off point or score to identify areas as strong or weak. All areas with scores above institutional average score point were stronger areas and all below institutional average score point were weaker areas.

Responses were received from 103 teacher educators out of which 38 were male and 65 were female. There were 14 teacher educators in IASE Aizawl and 117 teacher educators in DIETs of Mizoram at the time of study i.e. a total of 131 teacher educators in all. Thus, 78.63% responded to the questionnaire.

Responses were received from 539 teacher trainees out of which 208 were male and 331 were female. There were a total of 1448 teacher trainees in IASE Aizawl and 8 DIETs of Mizoram at the time of study. Thus, 37.22 % responded to the questionnaire.

SCERT Mizoram was not included in the test as it did not offer teacher education course under CSSTE i.e. D.El.Ed, B.Ed and M.Ed courses.

3.3.2 Establishing Reliability of the tool (MIPQ) used

The reliability of the tools used was done using test-retest method. The first test was administered during November of 2021 and retest was administered in December 2021 after a gap of 14 days. The first test was responded by 45 faculty of DIET and retest was responded by 44 faculty of DIET.

The reliability of the test was determined using SPSS as shown below:

Table 3.2

Reliability test using Cronbach's alpha

Case Processing Summary

		N	%
Cases	Valid	110	100.0
	Excluded[a]	0	.0
	Total	110	100.0

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.999	.999	2

Correlations

		Test	Retest
Test	Pearson Correlation	1	.997**
	Sig. (2-tailed)		.000
	N	110	110
Retest	Pearson Correlation	.997**	1
	Sig. (2-tailed)	.000	
	N	110	110

**. Correlation is significant at the 0.01 level (2-tailed).

As can be seen from the above table, the case was valid for all 110 items and Cronbach's alpha is 0.999 which was very good.

3.4 Procedure of Data Collection

For the study, data was collected personally by the researcher. Opinionnaire and checklist were used to collect data from the implementing officers of the Centrally Sponsored Scheme of Teacher Education in the State. Mukhopadhyay's Institutional Profile Questionnaire was administered to the teacher educators as well as teacher trainees.

Teacher Education Administrators Opinionnaire on CSSTE alongwith Checklist for examining changes in teacher education in Mizoram was administered to the administrators or heads of the teacher education institutions in Mizoram. These data were collected during the month of July and August 2024.

Mukhopadhyay's Institutional Profile Questionnaire was administered to the teacher educators as well as teacher trainees of 8 DIETs of Mizoram and IASE Aizawl. Data collection was done during December 2022 till June 2023 as follows:

DIET Aizawl - December 2022, May 2023 and June 2023

DIET Lunglei - December 2022, April 2023 and May 2023

DIET Saiha - December 2022 and June 2023

DIET Champhai - May 2023

DIET Kolasib - December 2022 and May 2023

DIET Serchhip - April 2023 and May 2023

DIET Lawngtlai - January 2023 and May 2023

DIET Mamit - December 2022 and May 2023

IASE Aizawl – June 2023

3.5 Data Analysis

Both Qualitative and Quantitative techniques were used to analyse the data. For qualitative analysis, document analysis was done. For quantitative analysis collected data was scored, tabulated and analyzed using appropriate statistical techniques. Where applicable, descriptive statistics were used along with parametric statistics like t test and ANOVA for comparison.

CHAPTER IV
ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with the analysis and interpretation of findings in the present study.

Data and their interpretation were presented according to the objectives stated for the research as follows:

1. To trace the origin and development of Centrally Sponsored Scheme of Teacher Education in Mizoram.
2. To examine the changes that have taken place in teacher education in Mizoram since the implementation of Centrally Sponsored Scheme of Teacher Education.
3. To examine the problems and challenges faced by the stakeholders in the implementation of Centrally Sponsored Scheme of Teacher Education.
4. To examine the perception of teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram.
5. To compare the perception of male and female teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram.
6. To examine the perception of teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram.
7. To compare the perception of male and female teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram.
8. To compare the perception of various Teacher Education Institutions about Total Quality Management of Teacher Education Institutions in Mizoram.
9. To compare the perception of teacher trainees and teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram.
10. To suggest measures for strengthening Teacher Education Institutions in Mizoram.

4.1. Objective-1: To trace the origin and development of Centrally Sponsored Scheme of Teacher Education in Mizoram.

In order to gain a more organized means for delivering desired information, this objective was divided into the following dimensions:

1. Origin of teacher education in Mizoram
2. Establishment of Teacher education Institutions in Mizoram

The above dimensions are discussed as below:

4.1.1. Origin of teacher education:

In order to trace the origin and development of CSSTE in Mizoram the researcher followed a historical research method. All relevant historical documents inclusive of available literature, office records and annual reports of respective institutions were used as tools for primary data collection.

The following paragraphs were a summary of the same in a chronological order. No attempt has been made to classify the years in uniform manner. Rather attempt has been made to classify each period with major emphasis on the pivotal points that happened within that period.

I. Before CSSTE

1901 – 1953:

Although politically and historically, Mizoram was and still is among the younger and least known states of India. However, Mizoram could boast of having a long history of teacher training which can be considered to have started back in 1901 when the British Missionaries taught the method of teaching to the first batch of Mizo teachers. The missionaries often conduct teacher training in Aizawl and Lunglei even before the establishment of a regular teachers training institute. The teacher training programmes run by the missionaries at Aizawl and Lunglei were later institutionalized and functioning till Basic Training Centre was established by the government at Aizawl in 1953 for training of Primary School Teachers. This Basic Training Centre later became DIET Aizawl and thus the existing DIET Aizawl could be considered as the longest running professional training institute in Mizoram.

1954 – 1987:

To meet the growing need as a result of the opening of Middle Schools in the bigger villages, one Normal Training School for training of Middle School Teachers was established by the government at Aizawl in 1970. The Basic Training Centre and the Normal Training School were amalgamated into Under Graduate Teachers Training Institute (UGTTI) in 1974 which was later on named Teachers' Training Institute (T.T.I.) to accommodate training of graduate teachers as well. In the same year i.e. 1974, one Teachers' Training Institute (T.T.I.) was opened at Lunglei. In these T.T. I's, training courses for Primary & Middle School Teachers ran side by side.

Another Teacher Education Institute known as Mizoram Institute of Education (MIE) was established in 1975. It later became the College of Teacher Education (CTE) in 1997, the only CTE in the State during that time.

The State Council of Educational Research and Training (SCERT) was established in 1980 as an academic wing of the Directorate of School Education.

II. After CSSTE

1988 – 2004:

Under the Restructuring and Reorganisation of Teacher Education in the Ninth Plan, the two TTIs were upgraded into DIETs in 1988 (Aizawl) and 1993 (Lunglei). Chhimtuipui district at that time was the only district in Mizoram which did not have a DIET in its own.

2005 – 2011:

As per the provision for setting up of 'smaller sized' or 'Telescoped DIET' in the guidelines of Centrally Sponsored Scheme of Restructuring and Reorganisation of Teacher Education 1987 and consequent to the creation of five (5) new revenue districts in Mizoram, Ministry of Human Resources Development, Govt. of India approved sanction for setting up of six (6) new Telescoped DIETs in the districts of Saiha, Lawngtlai, Serchhip, Champhai, Kolasib and Mamit in the year 2003-04. Thus, Telescoped DIETs were established in the year 2005 in the six Districts of Mizoram where no DIET exists. These Telescoped DIETs were formally known as District Resource Centres (DRCs) and the main function were focused on In-Service Teacher Training of Elementary and Secondary stage and Action Research.

The District Resource Centres (DRCs) did not undertake pre-service teacher education and this course was conducted by the two full-fledged DIETs at Aizawl and Lunglei. The main task of the institution was to uplift the quality of district elementary education through in-service teacher training, on-site academic support to schools and organising workshops, seminars for teachers, headmasters, education officials, NGOs, community leaders etc.

College of Teacher Education was further upgraded to its present status of an IASE in 2005. The IASE Aizawl was performing in compliance with the MHRD notification Letter no. F43-4/2005-EE.9 Dated New Delhi 15th September 2005. Consent of the State Government to upgrade CTE into IASE taking up the dual functions to offer both B.Ed and M.Ed Courses apart from other vested functions was issued by the Govt. of Mizoram vide letter No.B.19020/1/2002-EDN dt. 26th October, 2005.

SCERT was made a separate Directorate on 22nd May 2008. It was declared the Academic Authority for the Elementary Education of the State following the enactment of the RTE Act, on 22nd Sept 2010 and it was concerned with the development of curriculum and textbook at the elementary stage. Teacher Education and Training was one unit among its many programmes.

2012 – 2017:

There was a provision on the Guidelines for Restructuring and Re-organisation of the Centrally Sponsored Scheme on Teacher Education, June 2012 that the existing District Resource Centres (DRCs) could be upgraded into full-fledged DIETs on need basis. Acting upon this, the government of Mizoram proposed all six DRCs to be upgraded to DIETs and consequent to the approval by the central government all six DRC's of Mizoram were upgraded to full-fledged DIET on 15th April 2013. The CTE after upgradation to an IASE in 2005 began functioning as such from the 3rd March 2012.

4.1.2. Establishment of Teacher Education Institutions:

A gestalt view of the major development regarding establishment of teacher education institutions (an important aspect of the general development of teacher education) in chronological order was made in the following table:

Table 4.1

Establishment of Teacher Education Institutions in Mizoram

Year	Aizawl	Lunglei	Saiha	Champhai	Kolasib	Serchhip	Lawngtlai	Mamit
1901	Teacher training initiated by Christian Missionaries							
1953	Junior Basic Training Centre	-	-	-	-	-	-	-
1974	Junior Basic Training Centre changed to Normal Training School a.k.a Under-graduate Teacher Training Institute (UGTTI)	UGTTI	-	-	-	-	-	-
1975	Mizoram Institute of Education (MIE)							
1980	UGTTI upgraded to Teacher Training Institute (TTI)	TTI	-	-	-	-	-	-
1989	TTI upgraded to District Institute of Education and Training (DIET)	TTI	-	-	-	-	-	-
1993	DIET	DIET	-	-	-	-	-	-
1997	MIE upgraded to College of Teacher Education (CTE)							
2005	• DIET • CTE upgraded to Institute of Advanced Study in Education (IASE)	DIET	Telescoped DIET/ District Resource Centre (DRC)					
2013	DIET	DIET	DRC upgraded to DIET					

Source: Office records from DIET Aizawl and SCERT Mizoram

As found in Table 4.1 a small teacher training programme started in 1901 by the British Missionaries have evolved to a key teacher training institute after India gained its independence. Eventually, the government continue to run teacher training and after Centrally Sponsored Scheme of Teacher Education was introduced in the state of Mizoram, existing TEIs were upgraded and supported and as a result, there were 8 DIETs, 1 IASE and 1 SCERT in the state of Mizoram which were the Teacher

Education Institutions funded under the scheme. As of today, all the eight DIETs were now offering D.El.Ed course after obtaining recognition from NCTE. B.Ed courses were offered in DIETs Aizawl and DIET Lunglei. B.Ed and M.Ed coursed were offered by IASE and B.Ed (Special Education) was offered by SCERT Mizoram. The next table shows teacher education courses/programmes offered by Teacher Education Institutes in Mizoram.

Table 4.2

Teacher Education Institutes in Mizoram and courses offered

Institutions	District	Course/Programme	Intake Approved
SCERT	Aizawl	2-year B.Ed (Special Edn.)	60
DIET	Aizawl	2-year D.El.Ed	120
		2-year B.Ed	50
DIET	Lunglei	2-year D.El.Ed	100
		2-year B.Ed	50
DIET	Saiha	2-year D.El.Ed	50
DIET	Champhai	2-year D.El.Ed	50
DIET	Kolasib	2-year D.El.Ed	50
DIET	Serchhip	2-year D.El.Ed	50
DIET	Lawngtlai	2-year D.El.Ed	50
DIET	Mamit	2-year D.El.Ed	50
IASE	Aizawl	2-year B.Ed	120
		2-year B.Ed (Multi mode)	200
		1-year M.Ed	35

Source: Office records from SCERT Mizoram

Table 4.2 shows various teacher education courses/programmes run by Teacher Education Institutes in Mizoram and their intake capacity. SCERT Mizoram run B.Ed (Special Education) under the state budget independently from CSSTE. All the eight DIETs offer Diploma in Elementary Education (D.El.Ed) courses and additionally DIET Aizawl and DIET Lunglei also offers Bachelor of Education (B.Ed)

courses. IASE Aizawl offers B.Ed in both regular and multimode course alongwith Master of Education (M.Ed).

The deep rootedness of teacher education in the annals of the education history of Mizoram and the subsequent development of teacher education institutions can thus be seen.

4.2. Objective 2: To examine the changes that have taken place in teacher education in Mizoram since the implementation of Centrally Sponsored Scheme of Teacher Education.

In order to gain a more organized means for delivering desired information, this objective was divided into the following dimensions:

1. Management
2. Teacher Education Courses/Programmes
3. Qualification and Cadre Management of Teacher Educators
4. Infrastructure

The researcher prepared a checklist for examining the changes in Teacher Education in Mizoram based on the above-mentioned dimensions. CSSTE was initiated by the Government of India in 1987, it can be considered to be started in Mizoram after upgradation of the then TTI Aizawl to DIET Aizawl on 30th of December 1988 and the actual operationalization of CSSTE started from 1987 after the publication of the DIET guidelines by the Government of India. Hence, the changes observed were classified as before 1987 and after 1987. Data was collected from teacher education institutions of Mizoram and analysed as follows –

4.2.1 Changes with regards to Management, Teacher Education Courses/Programmes and Qualification & Cadre Management of Teacher Educators

i. Changes in SCERT Mizoram: This was reflected in the following table 4.3 to table 4.5 as follows –

Table 4.3

Changes in SCERT Mizoram with respect to Management

SN	Particulars	Before 1987	After 1987
1	Established/Start of the institution	Yes	No
2	Received funds from the State Government	Yes	Yes
3	Received funds from the Central Government	Yes	Yes
4	Recruitment done by the State Government	Yes	Yes
5	Recruitment done by the Central Government	No	No
6	Salary structure as per State Government	Yes	Yes
7	Salary structure as per Central Government	No	No

Source: Survey

As seen from the table 4.3 regarding management, SCERT Mizoram was established prior to the enactment of CSSTE. However, funds were received from the central government as well as the state government even before 1987 which continued after the introduction of CSSTE i.e. after 1987. Recruitment has always been done by the state government before and after 1987 and the salary structure was and is always determined by the state government as per the state pay structure.

There was not much change in management before and after 1989, funding, recruitment processes and salary structure remained unchanged.

Table 4.4

Changes in SCERT Mizoram with respect to Teacher Education Courses/Programme

SN	Particulars	Before 1987	After 1987
1	Diploma (D.T.Ed, D.El.Ed, D.Ed etc.) course	No	No
2	Graduate (B.T, B.Ed, etc.)	No	No
3	Post Graduate (M.Ed etc.)	No	No
4	Pre-Service Teacher Education	No	No
5	In Service Teacher Education	Yes	Yes
6	Intake Capacity as per State Government norms	No	No
7	Intake Capacity as per Central Government norms	No	No
8	Course recognised/approved by State Government	No	No
9	Course recognised/approved by Central Government	No	No

Source: Survey

As seen from the table 4.4 regarding Teacher Education Courses/Programmes SCERT Mizoram did not conduct Pre-Service Teacher Education before and after 1987, thus Diploma (D.T.Ed, D.El.Ed, D.Ed etc.) course, Graduate (B.T, B.Ed, etc.) and Post Graduate (M.Ed etc.) courses were not run by SCERT Mizoram. It may be noted however that B.Ed Special Education course offered by SCERT Mizoram funded by the state government which started after 2017 was not included in this study. In-Service Teacher Education programmes were however conducted by SCERT Mizoram before 1987 and after 1987.

In short, SCERT Mizoram conducted only in-service teacher training before and after implementation of CSSTE in Mizoram.

Table 4.5

Changes in SCERT Mizoram with respect to Qualification and Cadre Management of Teacher Educators

Sl. No.	Particulars	Before 1987	After 1987
1	General qualification (upto Graduate e.g. B.A, B.Sc etc.)	Yes	Yes
2	General qualification (upto Post Graduate e.g. M.A, M.Sc etc.)	Yes	Yes
3	Professional qualification (upto Graduate e.g. B.T, B.Ed etc.)	Yes	Yes
4	Professional qualification (upto Post Graduate e.g. M.Ed etc.)	No	No
5	Area / Subject wise staffing pattern followed	No	No
6	Direct recruitment	Yes	Yes
7	Promotion from school or another institute	Yes	Yes
8	Deputation	Yes	Yes
9	Teacher Education Cadre formed	No	No

Source: Survey

As seen from the table 4.5 regarding Qualification and Cadre Management of Teacher Educators there was no change in general qualification i.e. upto graduate/post graduate before and after 1987. Also, no change in professional qualification i.e. upto graduate level only before and after 1987. Again, area/subject-wise staffing pattern was not followed before and after 1987. Recruitments were done through direct

recruitment and promotion as well as deputation before and after 1987. Teacher Education cadre was not formed before and after 1987.

In summary, the table suggests that general and professional qualifications for teacher educators remained unchanged and no area/subject-wise staffing pattern was followed. Recruitment processes (direct, promotion, deputation) remained the same and no Teacher Education Cadre was formed.

ii. Changes in IASE Aizawl: This was reflected in the following table 4.6 to table 4.8 as follows -

Table 4.6

Changes in IASE Aizawl with respect to Management

Sl. No.	Particulars	Before 1987	After 1987
1	Established/Start of the institution	Yes	No
2	Received funds from the State Government	Yes	Yes
3	Received funds from the Central Government	No	Yes
4	Recruitment done by the State Government	Yes	Yes
5	Recruitment done by the Central Government	No	No
6	Salary structure as per State Government	Yes	Yes
7	Salary structure as per Central Government	No	No

Source: Survey

As seen from the table 4.6 regarding management, IASE Aizawl was established prior to the enactment of CSSTE. However, funds were received from the central government only after 1987. Funds was received from the state government even before 1987 which continued after the introduction of CSSTE i.e. after 1987. Recruitment has always been done by the state government before and after 1987 and the salary structure was and is always determined by the state government as per the state pay structure.

In summary, there was change in management before and after 1987 with regards to funding received as funds were received from the Central Government even after 1987 which indicated that CSSTE was the source of change in funding. The

recruitment and salary structure remain unchanged, following the State Government's norms.

Table 4.7

Changes in IASE Aizawl with respect to Teacher Education Courses/Programme

Sl. No.	Particulars	Before 1987	After 1987
1	Diploma (D.T.Ed, D.El.Ed, D.Ed etc.) course	No	No
2	Graduate (B.T, B.Ed, etc.)	Yes	Yes
3	Post Graduate (M.Ed etc.)	No	Yes
4	Pre-Service Teacher Education	No	Yes
5	In Service Teacher Education	Yes	Yes
6	Intake Capacity as per State Government norms	Yes	No
7	Intake Capacity as per Central Government norms	No	Yes
8	Course recognised/approved by State Government	No	No
9	Course recognised/approved by Central Government	Yes	Yes

Source: Survey

As seen from the table 4.7 regarding Teacher Education Courses/Programmes, IASE Aizawl did not conduct Pre-Service Teacher Education before 1987 but started only after 1987. IASE Aizawl did not offer Diploma (D.T.Ed, D.El.Ed, D.Ed etc.) course but offer Graduate (B.T, B.Ed, etc.) and Post Graduate (M.Ed etc.) courses. The courses run by IASE Aizawl were approved by the Central Government but their intake capacity was decided by the state government before 1987 but after 1987 it was decided by the Central Government. In-service training was conducted before and after 1987.

In short, Post Graduate courses (M.Ed, etc.) and Pre-Service Teacher Education were introduced after 1987 and intake capacity shifted from State Government norms to Central Government norms after 1987. There was no change in in-service teacher education.

Table 4.8

Changes in IASE Aizawl with respect to Qualification and Cadre Management of Teacher Educators

Sl. No.	Particulars	Before 1987	After 1987
1	General qualification (upto Graduate e.g. B.A, B.Sc etc.)	No	Yes
2	General qualification (upto Post Graduate e.g. M.A, M.Sc etc.)	Yes	Yes
3	Professional qualification (upto Graduate e.g. B.T, B.Ed etc.)	Yes	Yes
4	Professional qualification (upto Post Graduate e.g. M.Ed etc.)	No	Yes
5	Area / Subject wise staffing pattern followed	Yes	Yes
6	Direct recruitment	Yes	Yes
7	Promotion from school or another institute	No	No
8	Deputation	No	No
9	Teacher Education Cadre formed	No	No

Source: Survey

As seen from the table 4.8 regarding Qualification and Cadre Management of Teacher Educators there was change in general qualification and also in professional qualification i.e. from graduate level before 1987 to post graduate level after 1987. Area/subject-wise staffing pattern was followed before and after 1987. Recruitment was done through direct recruitment only before and after 1987. Teacher Education cadre was not formed before and after 1987.

In summary, the table suggests that there was change in general and professional qualifications for teacher educators while no change in area/subject-wise staffing pattern and recruitment process. No Teacher Education Cadre was formed.

iii. Changes in DIET Aizawl and DIET Lunglei: DIET Aizawl and DIET Lunglei were clubbed together because they share similar condition of being upgraded from existing TTI to DIET under CSSTE. The changes were reflected in the following table 4.9 to table 4.11 as follows –

Table 4.9

Changes in DIET Aizawl and DIET Lunglei with respect to Management

Sl. No.	Particulars	Before 1987	After 1987
1	Established/Start of the institution	Yes	No
2	Received funds from the State Government	Yes	Yes
3	Received funds from the Central Government	No	Yes
4	Recruitment done by the State Government	Yes	Yes
5	Recruitment done by the Central Government	No	No
6	Salary structure as per State Government	Yes	Yes
7	Salary structure as per Central Government	No	No

Source: Survey

As seen from the table 4.9 regarding management, DIET Aizawl and DIET Lunglei were established prior to CSSTE and funds were received from the central government only after 1987. Funds were received from the state government before and after 1987. Recruitment and salary structure was and is as per the state government before and after 1987.

In summary, there was change in management before and after 1987 with regards to funding received as funds were received from the Central Government after 1987 which indicate that CSSTE was the source of change in funding. The recruitment and salary structure remained unchanged, following the State Government's norms.

Table 4.10

Changes in DIET Aizawl and DIET Lunglei with respect to Teacher Education Courses/Programme

Sl. No.	Particulars	Before 1987	After 1987
1	Diploma (D.T.Ed, D.El.Ed, D.Ed etc.) course	Yes	Yes
2	Graduate (B.T, B.Ed, etc.)	No	Yes
3	Post Graduate (M.Ed etc.)	No	No
4	Pre-Service Teacher Education	No	Yes
5	In Service Teacher Education	Yes	Yes
6	Intake Capacity as per State Government norms	Yes	No
7	Intake Capacity as per Central Government norms	No	Yes
8	Course recognised/approved by State Government	Yes	Yes
9	Course recognised/approved by Central Government	Yes	Yes

Source: Survey

As seen from the table 4.10 regarding Teacher Education Courses/Programmes, DIET Aizawl and DIET Lunglei started Pre-Service Teacher Education only after 1987 but offer Diploma course before and after 1987. Graduate course was offered after 1987 only and Post Graduate courses was not offered. The courses run was approved by the both the State and Central Government but their intake capacity was decided by the state government before 1987 but after 1987 it was decided by the Central Government. In-service training was conducted before and after 1987.

In short, change happened in course offered (B.Ed) after 1987. Pre-Service Teacher Education was introduced after 1987 and intake capacity shifted from State Government norms to Central Government norms after 1987. There was no change in in-service teacher education.

Table 4.11

Changes in DIET Aizawl and DIET Lunglei with respect to Qualification and Cadre Management of Teacher Educators

Sl. No.	Particulars	Before 1987	After 1987
1	General qualification (upto Graduate e.g. B.A, B.Sc etc.)	Yes	No
2	General qualification (upto Post Graduate e.g. M.A, M.Sc etc.)	Yes	Yes
3	Professional qualification (upto Graduate e.g. B.T, B.Ed etc.)	Yes	Yes
4	Professional qualification (upto Post Graduate e.g. M.Ed etc.)	No	Yes
5	Area / Subject wise staffing pattern followed	No	No
6	Direct recruitment	Yes	Yes
7	Promotion from school or another institute	Yes	Yes
8	Deputation	No	No
9	Teacher Education Cadre formed	No	No

Source: Survey

As seen from the table 4.11 regarding Qualification and Cadre Management of Teacher Educators there was change in general qualification and also in professional qualification i.e. from graduate level before 1987 to post graduate level after 1987. Area/subject-wise staffing pattern was not followed before and after 1987. Recruitment was done through direct recruitment and promotion before and after 1987. Teacher Education cadre was not formed before and after 1987.

In summary, there was change in general and professional qualifications for teacher educators while no change in recruitment process and area/subject-wise staffing pattern was not followed ever. No Teacher Education Cadre was formed.

iv. Changes in 6 DIETs viz. DIET Saiha, DIET Champhai, DIET Kolasib, DIET Serchhip, DIET Lawngtlai and DIET Mamit: The remaining 6 DIETs viz. DIET Saiha, DIET Champhai, DIET Kolasib, DIET Serchhip, DIET Lawngtlai and DIET Mamit were clubbed together because they were established under similar condition at the same time. The changes were reflected in the following table 4.12 to table 4.14 as follows –

Table 4.12

Changes in DIET Saiha, DIET Champhai, DIET Kolasib, DIET Serchhip, DIET Lawngtlai and DIET Mamit with respect to Management

SN	Particulars	Before 1987	After 1987
1	Established/Start of the institution	No	Yes
2	Received funds from the State Government	No	Yes
3	Received funds from the Central Government	No	Yes
4	Recruitment done by the State Government	No	Yes
5	Recruitment done by the Central Government	No	No
6	Salary structure as per State Government	No	Yes
7	Salary structure as per Central Government	No	No

Source: Survey

Referring to table 4.12, it could be seen that 6 DIETs viz. DIET Saiha, DIET Champhai, DIET Kolasib, DIET Serchhip, DIET Lawngtlai and DIET Mamit were established only after 1987 and hence changes before and after 1987 could not be observed other than the fact that they were created under CSSTE as per the scheme. Funds were received from the state and central government as per the scheme. Recruitment and salary structure was as per the state government.

Table 4.13

Changes in DIET Saiha, DIET Champhai, DIET Kolasib, DIET Serchhip, DIET Lawngtlai and DIET Mamit with respect to Teacher Education Courses/Programme

SN	Particulars	Before 1987	After 1987
1	Diploma (D.T.Ed, D.El.Ed, D.Ed etc.) course	No	Yes
2	Graduate (B.T, B.Ed, etc.)	No	No
3	Post Graduate (M.Ed etc.)	No	No
4	Pre-Service Teacher Education	No	Yes
5	In Service Teacher Education	No	Yes
6	Intake Capacity as per State Government norms	No	No
7	Intake Capacity as per Central Government norms	No	Yes
8	Course recognised/approved by State Government	No	Yes
9	Course recognised/approved by Central Government	No	Yes

Source: Survey

As seen from the table 4.13 regarding Teacher Education Courses/Programmes, DIET Saiha, DIET Champhai, DIET Kolasib, DIET Serchhip, DIET Lawngtlai and DIET Mamit offer Diploma course only. They conducted Pre-Service Teacher Education as well as In-service Teacher Education. The Diploma courses run in these DIETs were approved by the State Government as well as the Central Government and their intake capacity was decided by the Central Government.

In short, changes could not be compared with regards to these 6 DIETs as they were established long after CSSTE was introduced. The courses they offered, their intake capacity and recognition/approval all happened after 1987.

Table 4.14

Changes in DIET Saiha, DIET Champhai, DIET Kolasib, DIET Serchhip, DIET Lawngtlai and DIET Mamit with respect to Qualification and Cadre Management of Teacher Educators

Sl. No.	Particulars	Before 1987	After 1987
1	General qualification (upto Graduate e.g. B.A, B.Sc etc.)	No	No
2	General qualification (upto Post Graduate e.g. M.A, M.Sc etc.)	No	Yes
3	Professional qualification (upto Graduate e.g. B.T, B.Ed etc.)	No	Yes
4	Professional qualification (upto Post Graduate e.g. M.Ed etc.)	No	Yes
5	Area / Subject wise staffing pattern followed	No	No
6	Direct recruitment	No	Yes
7	Promotion from school or another institute	No	Yes
8	Deputation	No	No
9	Teacher Education Cadre formed	No	No

Source: Survey

As seen from the table 4.14 regarding Qualification and Cadre Management of Teacher Educators the general qualification and also professional qualification in the 6 DIETs were from post graduate level. Area/subject-wise staffing pattern was not followed. Recruitment was done through direct recruitment and promotion. Teacher Education cadre was not formed.

In short, these 6 DIETs follow the pattern of the two existing DIETs i.e. DIET Aizawl and DIET Lunglei after 1987 with regards to Qualification and Cadre Management of Teacher Educators.

4.2.2. Changes in Infrastructure facilities of Teacher Education Institutions

Infrastructure facilities has been treated separately and a checklist based on the guidelines of Teacher Education made by MHRD, Govt. of India was prepared. Checklist was prepared separately for SCERT as it has been running as an administrative office of the state government i.e. as a Directorate and as well as an academic institution. A common checklist was used for 8 DIETs and IASE Aizawl. The changes observed were again classified as before 1987 and after 1987, there were also facilities that were not available in the institutions as observed through checklist but which they were supposed to have as per the CSSTE Guidelines which were listed seperately. The analysis through checklist thus prepared was as follows:

i. Changes in SCERT Mizoram with regards to infrastructure

The infrastructure and facilities of SCERT Mizoram was compared before and after 1987 through a separate checklist, the breakdown of which was as follows:

1. Before 1987:

There were facilities that existed before 1987 in SCERT Mizoram as observed through checklist which remained unchanged which were listed below:

1. Joint Director's Room
2. Office Staff Rooms
3. Audio-Visual Studio
4. Library
5. Science Laboratory
6. Computer Cell
7. Toilets Facilities
8. Canteen
9. Drinking Water Facilities
10. Store Room
11. Staff Accommodation
12. T.V.

13. VCR
14. Educational Audio-Video CDs/DVDs
15. Multi Media Projector and Screen
16. Tele/Video Conference Facilities
17. Studio

2. After 1987:

There were new facilities after 1987 in SCERT Mizoram as observed through checklist which were listed below:

1. Director's Room
2. Conference Hall
3. Auditorium
4. Seminar Rooms
5. Mathematics Laboratory
6. Language Laboratory
7. Educational Technology Laboratory
8. Hostel/Guest House
9. Ramp (for accessibility)
10. Photocopier and Scanners
11. EDUSAT (educational satellite connectivity)
12. Computers with Internet and Printers

3. Facilities that were not available:

1. Psychology Laboratory (not available before or after 1987)
2. Art and Craft Room (not available before or after 1987)
3. Performing Arts Room (not available before or after 1987)
4. Health and Physical Education Room (not available before or after 1987)
5. Playground (not available before or after 1987)

In summary, SCERT Mizoram has seen significant infrastructure development after 1987, with the addition of new facilities and upgrade of existing ones.

ii. Changes in IASE Aizawl with regards to infrastructure

The infrastructure and facilities of IASE Aizawl before and after 1987 was compared through checklist. The summary of the changes was as follows:

1. Before 1987:

Facilities that the institution had before 1987 were listed as under:

1. One Classroom for every 50 students
2. Library-cum-Resource Centre
3. Principal's Office
4. Staff Room (Faculty)
5. Administrative Office
6. Store Room
7. Boys Common Room
8. Girls Common Room
9. Canteen
10. Separate Toilet Facility
11. T.V., VCR
12. Educational Audio-Video CDs/DVDs
13. Multi Media Projector and Screen
14. Tele/Video Conference Facilities
15. Photocopier and Scanners
16. Games and Sports Equipment

2. After 1987:

There were new additions after 1987 in IASE Aizawl as observed through checklist which were listed below:

1. Multipurpose hall
2. Curriculum Laboratory
3. Computer Lab
4. Arts and Craft Resource Centre
5. Health and Physical Education Resource Centre
6. Parking Space
7. Open space or lawns, gardening activities, etc.
8. Multipurpose playfield

9. EDUSAT (educational satellite connectivity)
10. Computers with Internet and Printers

3. Facilities that were not available:

1. Studio (not available before or after 1987)
2. Visitors' Room (not available before or after 1987)

Overall, the institution has seen significant upgrades and additions to its infrastructure and facilities after 1987, aimed at enhancing the learning experience and providing a more comprehensive education.

iii. Changes in DIET Aizawl and DIET Lunglei with regards to infrastructure

The infrastructure and facilities of DIET Aizawl and DIET Lunglei before and after 1987 was shown together as they were similar institutes upgraded to DIETs under CSSTE and bore similar characteristics in many senses and their responses was also similar. The summary of observation through checklist was as follows:

1. Before 1987:

Facilities that DIET Aizawl and DIET Lunglei had before 1987 were listed as under:

1. One Classroom for every 50 students
2. Library-cum-Resource Centre
3. Principal's Office
4. Staff Room (Faculty)
5. Administrative Office
6. Store Room
7. Canteen
8. Parking Space
9. Open space or lawns, gardening activities, etc
10. T.V., VCR
11. Educational Audio-Video CDs/DVDs
12. Multi Media Projector and Screen
13. Games and Sports Equipment

2. After 1987:

There were new additions after 1987 in DIET Aizawl and DIET Lunglei as observed through checklist which were listed below:

1. Multipurpose hall
2. Curriculum Laboratory
3. Computer Lab
4. Arts and Craft Resource Centre
5. Health and Physical Education Resource Centre
6. Boys Common Room
7. Girls Common Room
8. Separate Toilet Facility
9. Multipurpose playfield
10. Photocopier and Scanners
11. EDUSAT (educational satellite connectivity)
12. Computers with Internet and Printers

3. Facilities that were not available:

1. Tele/Video Conference Facilities (not available before or after 1987)
2. Studio (not available before or after 1987)
3. Visitors' Room (not available before or after 1987)

Overall, DIET Aizawl and DIET Lunglei has seen significant upgrades and additions to its infrastructure and facilities after 1987, aimed at enhancing the learning experience and providing a more comprehensive education.

iv. Changes in 6 DIETs viz. DIET Saiha, DIET Champhai, DIET Kolasib, DIET Serchhip, DIET Lawngtlai and DIET Mamit with regards to infrastructure:

The remaining 6 DIETs viz. DIET Saiha, DIET Champhai, DIET Kolasib, DIET Serchhip, DIET Lawngtlai and DIET Mamit were clubbed together because they were established under similar condition at the same time. Since these 6 DIETs were established after 1987 changes could not be compared before and after 1987. However, the infrastructure and facilities observed through checklist was summarised as follows:

1. **After 1987:**
    1. One Classroom for every 50 students
    2. Multipurpose hall
    3. Library-cum-Resource Centre
    4. Curriculum Laboratory
    5. Arts and Craft Resource Centre
    6. Health and Physical Education Resource Centre
    7. Principal's Office
    8. Staff Room (Faculty)
    9. Administrative Office
    10. Store Room
    11. Boys Common Room
    12. Girls Common Room
    13. Canteen
    14. Separate Toilet Facility
    15. Parking Space
    16. Open space or lawns, gardening activities, etc
    17. Multipurpose playfield
    18. T.V.
    19. Educational Audio-Video CDs/DVDs
    20. Multi Media Projector and Screen
    21. Photocopier and Scanners
    22. EDUSAT (educational satellite connectivity)
    23. Computers with Internet and Printers
    24. Games and Sports Equipment
    25. Computer Lab (DIET Serchhip only)

2. Facilities that were not available:

1. Computer Lab (not available in DIET Saiha, DIET Champhai, DIET Kolasib, DIET Lawngtlai and DIET Mamit)
2. VCR
3. Tele/Video Conference Facilities
4. Studio
5. Visitors' Room

In summary, the 6 DIETs established after 1987 has been equipped with various similar infrastructure and facilities to cater to the needs of teacher training aimed at enhancing the learning experience and providing a more comprehensive education.

4.3. Objective 3: To examine the problems and challenges faced by the stakeholders in the implementation of Centrally Sponsored Scheme of Teacher Education.

The problems and challenges faced by the stakeholders were mostly examined through opinionnaire and document analysis. The researcher prepared an opinionnaire which was administered to the heads of institutions and coupled with an analysis of various documents pertaining to Centrally Sponsored Scheme of Teacher Education, the problems and challenges faced by the stakeholders in the implementation of Centrally Sponsored Scheme of Teacher Education were examined.

4.3.1 Document Analysis

This section describes the document analysis done in connection with the CSSTE during the 12th Five-year plan i.e. during 2012-2017. The following documents has been analysed:

1) Perspective Plan of SCERT Mizoram (2012-2017)
2) Perspective Plan of 8 DIETs (2012-2017)
3) Perspective Plan of IASE (2012-2017)
4) Annual Work Plan (AWP) & Budget of SCERT Mizoram (2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017, 2017-2018)
5) Annual Work Plan (AWP) & Budget of 8 DIETs of Mizoram (2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017, 2017-2018)
6) Annual Work Plan (AWP) & Budget of IASE Aizawl (2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017, 2017-2018)
7) TEAB Meeting Minutes (2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017, 2017-2018)
8) Sanction letter of MHRD (2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017, 2017-2018)

Perspective plan for five years (2012-2017) was prepared during 2021-13 alongwith the Annual Work Plan & Budget for 2012-13. Planning formats were issued by the MHRD every year which forms the basis for preparation of the Annual Work Plan & Budget. Annual Work Plan & Budget was prepared by individual institutions which signify that Institutional planning was practiced by Teacher Education

Institutions in Mizoram. The Annual Work Plan and Budget prepared separately were submitted and consolidated at the state level by SCERT Mizoram.

The Annual Work Plan & Budget of Teacher Education in Mizoram was submitted to the Ministry of Human Resource Development (MHRD), Govt. of India for consideration and appraisal. The MHRD, Govt. of India then convene a Teacher Education Approval Board (TEAB) meeting under the chairmanship of Secretary, Department of School Education & Literacy for approval of the Annual Work Plan & Budget and consequently issue minutes of the TEAB meeting. Sanction of funds under CSSTE was done on the basis of approval mentioned in the TEAB meeting minutes.

The documents corresponding to various Teacher Education Institutions during the 12th Five Year Plan i.e from 2012 to 2017 under CSSTE were analysed separately for SCERT Mizoram, IASE Aizawl and 8 DIETs clubbed together as follows:

I. SCERT Mizoram

The first section in the AWP format was about SCERT. From this section some constant information noted was given in the following table

Table 4.15

About SCERT

Name of SCERT (Address, Phone, website, etc)	SCERT Mizoram Chaltlang Aizawl- 796012, Mizoram; Ph- 0389-2347790; website: scert.mizoram.gov.in
Year of Formation	1980
Overall infrastructure condition of the SCERT	SCERT building was constructed in 1987 and needs to be repaired. Many faculties have joined the office since then, therefore more rooms were needed.
Total Campus Area (in sq. mtr.)	4529.90 sq. metre
Total Built-up Area (in sq. mtr.)	866.3 sq. metre

Source: Office records from SCERT Mizoram

The next section was Process and Performance Indicator. This section includes Process Indicators and Performance indicators which includes Input/Activity Measures and Output/Outcome Measures. From this section it was noted that the teacher education curriculum of D. El. Ed course was revised based on National Curriculum Framework for Teacher Education 2009 and was being used from 2014-15. SCERT has also established special cells for Science and Mathematics as well as Mathematics Laboratory.

The third section was regarding Infrastructure Proposal which includes the status of Non-Recurring Central Assistance received in the previous years. No proposal was approved apart from those proposed in 2012-13.

The fourth section was regarding the Current Staff and Plan. It includes number of posts sanctioned as well as posts filled and posts vacant. No proposal for sanction of new posts was accepted during the years of study.

The fifth section was Function Wise Planning formats. It includes proposal for Capacity Building, Content Development, On-Site Support, Research and Action Research, Programmes Conducted for Faculty of SCERT, Technology in Teacher Education and Innovations. Some of the regular features of this section were: For Capacity Building – Refresher Course for DIET Faculty, Training of Headmasters etc.; Content Development – Development of Training Package, Materials for Refresher Course, Sessional Work Plan; On Site Support – Visit Teacher Education Institutions, visit to Selected BRC/CRCs, visit to Schools etc.; Research and Action Research – Evaluative study and other research which varies from year to year; Programmes Conducted for Faculty of SCERT – Exposure Visit, Holding Workshops, Organising Seminars etc.; Technology in Teacher Education – EDUSAT based training, Teacher Education MIS, Computer Literacy Programmes; Innovations – Identification of innovative practices and other studies on related fields.

The sixth section was Budget and Finance section which highlights the expenditure in the previous year and also the total proposal for the current year. This includes the Recurring as well the Non-Recurring Components.

The seventh section was regarding Estimated Expenditure on Salaries. Salary proposal was made by SCERT every year but was never sanctioned. This may be because posts were not created by the state and proposal for salary was not appraised.

The following table shows the components of central assistance which can be provided to SCERT as per the provision of the CSSTE.

Table 4.16

Central Assistance to SCERT as per provision of CSSTE

Particular	**Amount**	**Nature**
Strengthening of physical infrastructure like lecture halls, seminar rooms, hostel facilities, repairs and renovations, etc.	As per State SOR and Rs 30 lakh for equipment	Non-recurring per Plan period
Establishment of Special Cells, Laboratories for Science, Mathematics, Social Studies, Educational Technology, Computer & Language, English education	Rs.50 lakh per SCERT/SIE	Non-recurring/ per Plan period
Specific projects for academic activities	Rs.20 lakh per SCERT/SIE	Recurring /year
Capacity building programs for faculty of SCERTs	Rs.10 lakh per SCERT/SIE	Recurring /year
Salaries of faculty and staff of SCERT in respect of additional posts sanctioned and filled up after the introduction of the revised scheme by adoption/adaption of the suggested organizational structure of SCERT.	As per actual	Recurring /year
Training program of 5 days duration for training of educational administrators, including head teachers,	Rs.40,000 per cycle per DIET	Recurring /year
14 days Orientation/ Induction Training of Teacher Educators	Rs.200 per participant per day for 14 days	Recurring /year

Note: The above financial norms have to be distributed between Central Assistance and State Share in the ratio 90:10 for NER and Himalayan Regions

Source: Teacher Education Planning Handbook 2013-14

The Perspective Plan was read in line with AWP of SCERT Mizoram. It was found that the AWP prepared every year converge with the Perspective Plan prepared in 2012. The Perspective Plan and the corresponding AWP features both Recurring and Non-Recurring Components as shown in Table 4.5 above. The TEAB meeting minutes and the sanction letter thereof by the MHRD were also studied with respect to SCERT in particular. The findings were discussed below:

SCERT Mizoram: Financial Assistance from 2012-2017 (Non - Recurring)

Proposal for Non-Recurring Component was submitted in 2012-2013 and was approved by the TEAB on 29th Dec 2012. The 1st Installment was sanctioned on 26.02.2013 and the 2nd Installment was sanctioned on 01.06.2015. There was no other non-recurring component received by SCERT Mizoram during this plan period. The following table shows the financial assistance received by SCERT Mizoram during the 12th Five-year Plan period.

Table 4.17

SCERT Mizoram: Financial Assistance (Non - Recurring) (Rupees in lakhs)

Components	**Total Approved**	**Central Share**	**State Share**
Civil Works	175.68	158.11	17.57
Equipment	30.00	27.00	3.00
Establishment of Special Cells	31.73	28.56	3.17
Total	237.41	213.67	23.74

Source: Office records from SCERT Mizoram

During 2012-13, which was the starting year of the Restructuring and Re-organisation of the Centrally Sponsored Scheme of Teacher Education in the 12th Five-year plan, the TEAB was held two times. The proposal of SCERT Mizoram was heard on the 2nd TEAB held on 25th September 2012 at Shastri Bhavan, New Delhi in which Recurring Expenditures were approved. The TEAB for Non-Recurring Expenditures was held on 29th December 2012 wherein Central Assistance for Civil Works, Equipment and Establishment of Special Cells was approved as shown in Table 4.5 above. The Civil Works approved in this TEAB was for Construction of Multipurpose Building at SCERT Mizoram. Various equipment amounting to Rs 30.00 lakhs (Rupees thirty lakhs) was purchased through the State Purchase Advisory Board. Special Cells were also established in Science and Mathematics, Social Sciences and ICT.

On a closer scrutiny, it was found that sanction was given in two installments and the sanction for 2nd installment of Non-Recurring Expenditure was received after three years from approval i.e on 01.06.2015 only. The Multipurpose Building was constructed late and construction was done in 2017 by the state PWD.

SCERT - Financial Assistance from 2012-2017 (Recurring)

Recurring Expenditures seems to be the main feature of the Annual Work Plan and Budget every year. It has been the lifeline of Teacher Education in the state including SCERT Mizoram. The following table shows the Recurring Central Assistance approved for SCERT Mizoram by the TEAB from 2012-13 to 2017-18.

Table 4.18

SCERT Mizoram: Financial Assistance (Recurring) (Rupees in lakhs)

S. No	Year	2012-13			2013-14			2014-15			2015-16			2016-17			2017-18		
	Components	**Total Approved**	**Central Share**	**State Share**	**Total Approved**	**Central Share**	**State Share**	**Total Approved**	**Central Share**	**State Share**	**Total Approved**	**Central Share**	**State Share**	**Total Approved**	**Central Share**	**State Share**	**Total Approved**	**Central Share**	**State Share**
1	Specific project for academic activities	19.70	17.70	1.97	20.00	18.00	2.00	20.00	18.00	2.00	20.00	18.00	2.00	20.00	18.00	2.00	18.40	16.56	1.84
2	Capacity building programmes for faculty	9.50	8.55	0.95	10.00	9.00	1.00	9.75	8.77	0.98	10.00	9.00	1.00	10.00	9.00	1.00	9.20	8.28	0.92
3	Training Programme of Head Teachers	3.20	2.88	0.32	3.20	2.88	0.32	3.20	2.88	0.32									
4	Induction Training of Teacher Educators	3.36	3.02	0.34	6.30	5.67	0.63				5.60	5.04	0.56	3.80	3.42	0.38	5.09	4.58	0.51
	Total	**35.70**	**32.10**	**3.58**	**39.50**	**35.60**	**3.95**	**33.00**	**29.70**	**3.29**	**35.60**	**32.00**	**3.56**	**33.80**	**30.40**	**3.38**	**32.69**	**29.42**	**3.27**

Source: Office records from SCERT Mizoram

Recurring Components were approved every year in the figure of more than 30 lakhs. However, apart from the first two years all the components were not approved. Induction Training of Teacher Educators was not approved in 2014-15. Training programme of Head Teachers was not approved in 2015-16 and 2016-17

which may be because funds were given to SSA which should converge to the Teacher Education as reflected in the minutes of the TEAB in the corresponding year.

The next table shows the sanction received by SCERT Mizoram for CSSTE from 2012-2017 along with the sanction dates and amount sanctioned. It may be noted that sanction was given by the MHRD for Central Share only which was reflected in the following table. The state share was given by the state government of Mizoram, the sanctioned amount and date of which was not included in the table.

Table 4.19

Sanction Received for SCERT Mizoram under CSSTE (Rupees in lakhs)

Year	Approved by TEAB			Sanctioned by GOI				
				1st Installment		2nd Installment		
	Amount Approved	Central Share	State Share	Amount	Sanction Date	Amount	Sanction Date	Total
2012-13	35.71	32.13	3.6	16.1	24.12.2012	16.1	22.03.2013	32.1
2013-14	39.5	35.55	4	17.8	01.08.2013	17.8	19.12.2013	35.6
2014-15	32.95	29.66	3.3	14.8	03.03.2015	14.8	18.06.2015	29.7
2015-16	35.6	32.04	3.6	16	23.07.2015	16	23.02.2016	32
2016-17	33.8	30.42	3.4	15.2	30.12.2016			
2017-18	32.69	29.42	3.27		03.08.2017		28.12.2017	

Source: Office records from SCERT Mizoram

Sanction from the Govt. of India were released in two installments. There were instances when sanction was issued late; sanction was not issued in the calendar year of 2014, the first installment was issued on the last month of the financial year of 2014-15 and the second installment for 2014-15 was released three months after the financial year was over. No sanction was released for the second installment of the year 2016-17 till the date of writing this report. There was no separate institution wise break-up of sanction for the year 2017-18, the total amount sanction for the whole of Mizoram was shown separately.

II. IASE Aizawl

Similarly, the planning format for IASE also follow the same pattern. The first section was about IASE and from which some constant information noted was given in the following table.

Table 4.20

About IASE

Name of IASE (Address, Phone, website, etc)	Institute of Advanced Study in Education (IASE) Post Box 46; Republic Veng, Aizawl – 796001 0389 – 2322211 0389 – 2310565 (fax) www.iasemizoram.in principal.iasemz@gmail.com
Year of Formation	Mizoram Institute of Education : 1975 College ofTeacher Education : 1997 Upgraded to IASE : 2012
Pre-service programmes offered B.Ed (annual intake capacity) M.Ed (annual intake capacity)	 120 50
Other programmes offered B.Ed. Multimode Programme	 200
Total Campus Area (in sq. mtr.)	7318 sq. mtr.
Total Built-up Area (in sq.mtr.)	2500 sq.mtr.

Source: Office records from SCERT Mizoram

The next section was Process and Performance Indicator. This section includes Process Indicators and Performance indicators which includes Input/Activity Measures and Output/Outcome Measures. From this section it was noted that IASE has developed a B.Ed. Programme in the ODL mode for training of untrained in-service teachers of high schools and higher secondary schools in Mizoram.

The third section was regarding Infrastructure Proposal which includes the status of Non-Recurring Central Assistance received in the previous years. Civil works proposal was approved in 2012-13 and sanction was given. Equipment proposal amounting to Rs 20.00 lakhs was approved in 2013-14. However, sanction for the same was not received.

The fourth section was regarding the Current Staff and Plan. It includes number of posts sanctioned as well as posts filled and posts vacant. Eleven (11) new posts of Faculty and six (6) new posts of non-teaching staff have been created and filled up by the State Government.

The fifth section was Function Wise Planning formats. It includes proposal for Pre-Service Programmes, Research, Resource Centre and Support to DIETs, CTEs etc., Capacity Building of Teacher Educators, Programmes Conducted for Faculty of IASE, Technology in Teacher Education and Innovations, Material Development and On-Site Support.

The sixth section was Budget and Finance section which highlights the expenditure in the previous year and also the total proposal for the current year. This includes the Recurring as well the Non-Recurring Components.

The seventh section was regarding Estimated Expenditure on Salaries. The following table shows the components of central assistance which can be provided to IASE as per the provision of the CSSTE

Table 4.21

Central Assistance to IASE as per provision of CSSTE

Particular	Amount	Nature
EXISTING IASEs Expenditure for strengthening and upgrading infrastructure	As per State SORs plus Equipment: Rs.20 lakh per IASE	Non-recurring per Plan Period
EXISTING IASEs Expenditure on salary (for posts sanctioned and filled up after up-gradation), programs and activities and contingency for meeting day to day expenses including vehicle facility.	Rs.25 lakh for programmes and activities, Rs 15 lakh for contingency (includes Rs 3 lakh for vehicle if not already provided). Salary in respect of posts sanctioned and filled up after up-gradation	Recurring /year
NEW IASEs The criterion for setting up an IASE in a State: (a) State with <20 Districts – 1 IASE; (b) State with 21-40 Districts – 2 IASE; (c) State with more than 40 Districts – 3 IASE. The Departments of Education in State/ Central Universities would be upgraded as IASEs. Expenditure on infrastructure and equipment of new IASE	As per State SORs plus Equipment: Rs.30 lakh per IASE	Non-recurring
NEW IASEs Expenditure on salary (for posts sanctioned and filled up after up-gradation), programs and activities and contingency for meeting day to day expenses including renting of vehicles.	Rs.25 lakh for programmes and activities, Rs 15 lakh for contingency (includes Rs 3 lakh for vehicle if not already provided). Salary in respect of posts sanctioned and filled up after up-gradation	Recurring /year

Note: The above financial norms have to be distributed between Central Assistance and State Share in the ratio 90:10 for NER and Himalayan Regions.

Source: Teacher Education Planning Handbook 2013-14

The Perspective Plan was read in line with AWP of IASE Aizawl. It was found that the AWP prepared every year converge with the Perspective Plan prepared in 2012. The Perspective Plan and the corresponding AWP features both Recurring and Non-Recurring Components as shown in Table 4.5 above. The TEAB meeting minutes and the sanction letter thereof by the MHRD were also studied with respect to IASE Aizawl in particular. The findings were discussed below:

IASE Aizawl: Financial Assistance from 2012-2017 (Non - Recurring)

Proposal for non-recurring component was submitted in 2012-2013 and was approved by the TEAB on 29th Dec 2012. The 1st Installment was sanctioned on 26.02.2013 and the 2nd Installment was sanctioned on 01.06.2015. No other non-recurring component was received by IASE Aizawl during this plan period. The following table shows the financial assistance received by IASE Aizawl during the 12th Five-year Plan period.

Table 4.22

IASE Aizawl: Financial Assistance (Non - Recurring) (Rupees in lakhs)

Components	Total Approved	Central Share	State Share
Civil Works	25.00	22.50	2.50

Source: Office records from SCERT Mizoram

The proposal of IASE Aizawl was heard on the 2nd TEAB held on 25th September 2012 at Shastri Bhavan, New Delhi in which Recurring Expenditures were approved. The TEAB for Non-Recurring Expenditures was held on 29th December 2012 wherein Central Assistance for Civil Works was approved as shown in Table 4.5 above. The Civil Works approved herein was for Vertical extension of IASE Aizawl building.

On a closer scrutiny, it was found that sanction was given in two installments and the sanction for 2nd installment of Non-Recurring Expenditure was received after three years from approval i.e. on 01.06.2015 only.

The TEAB minutes of 2013-14 shows that an amount of Rs 20 lakh was approved for Equipment of IASE Aizawl but scrutiny of sanction letters from 2013-14 and the following years no sanction seems to have been received as such. There

was no mention of spill over or revalidation of the approved amount in the following years.

IASE Aizawl - Financial Assistance from 2012-2017 (Recurring)

The following table shows the Recurring Central Assistance approved for IASE Aizawl by the TEAB from 2012-13 to 2017-18.

Table 4.23

IASE Aizawl: Financial Assistance (Recurring) (Rupees in lakhs)

S. No	Year	2012-13			2013-14			2014-15			2015-16			2016-17			2017-18		
	Components	Total Approved	Central Share	State Share	Total Approved	Central Share	State Share	Total Approved	Central Share	State Share	Total Approved	Central Share	State Share	Total Approved	Central Share	State Share	Total Approved	Central Share	State Share
1	In-Service Training and Action Research	10.50	9.45	1.05															
2	Computer Consumables	15.00	13.50	1.50															
3	Programme and Activities				25.00	22.50	2.50	25.00	22.50	2.50	14.42	12.98	1.44	23.25	20.92	2.33	25.00	22.50	2.50
4	Contingency				15.00	13.50	1.50												
5	Salary													115.74	104.17	11.57	113.12	101.81	11.31
	Total	25.50	22.95	2.55	40.00	36.00	4.00	25.00	22.50	2.50	14.42	12.98	1.44	138.99	125.09	13.90	138.12	124.31	13.81

Source: Office records from SCERT Mizoram

Recurring Components were approved every year. The first year i.e 2012-13 the components approved were listed as In-Service Training and Action Research which were included in Programme and Activities in other years. Also, Computer Consumables listed in 2012-13 was included under Contingency in the subsequent

years. The regular feature during these five years was Programme and Activities. Salary was received from 2016-17 onwards after recruitment of staff was done.

The next table shows the sanction received by IASE Aizawl for CSSTE from 2012-2017 along with the sanction dates and amount sanctioned. It may be noted that sanction was given by the MHRD for Central Share only which was reflected in the following table. The state share was given by the state government the sanctioned amount and date of which was not included in the table.

Table 4.24

Sanction Received for IASE Aizawl under CSSTE (Rupees in lakhs)

Year	Approved by TEAB			Sanctioned by GOI					
				1st Installment			2nd Installment		
	Amount Approved	Central Share	State Share	Amount	Sanction Date		Amount	Sanction Date	Total
2012-13	25.5	22.95	2.55	11.47	24.12.2012		11.48	22.03.2013	22.95
2013-14	40	36	4	11.25	01.08.2013		18	19.12.2013	29.25
2014-15	25	22.5	2.5	11.25	03.03.2015		11.25	18.06.2015	22.5
2015-16	14.42	12.98	1.44	6.49	23.07.2015		6.49	23.02.2016	12.98
2016-17	138.99	125.09	13.9	62.55	30.12.2016				62.55
2017-18	138.12	124.308	13.812		03.08.2017			28.12.2017	

Source: Office records from SCERT Mizoram

Sanction from the Govt. of India was usually released in two installments within a financial year. There were instances when sanction was issued late; sanction was not issued in the calendar year of 2014, the first installment was issued on the last month of the financial year of 2014-15 and the second installment for 2014-15 was released three months after the financial year was over. No sanction was released for the second installment of the year 2016-17 till the date of writing this report. There was no separate institution wise break-up of sanction for the year 2017-18, the total amount sanction for the whole of Mizoram was shown separately.

III. DIETs

As above, the planning format for DIET also follow the same pattern. The first section in the AWP format was about DIET and from which some constant information noted was given in the following table

Table 4.25

About DIET

No. of districts created upto March, 2011	8
No. of DIETs sanctioned (i) Upgraded (ii) New	(i) 2+6 = 8 (2 upgraded from TTI in 1988 and 1993 and 6 from DRCs in 2013) (ii) Nil
No. of DIETs with NCTE recognition for D.Ed. course	8
Annual Intake capacity in DIETs	520
No. of DIETs functional	8
No. of DIETs having functional website	8

Source: Office records from SCERT Mizoram

The next section was Process and Performance Indicator. This section includes Process Indicators and Performance indicators which includes Input/Activity Measures and Output/Outcome Measures. From this section it was noted that DIETs functions as Resource Centres within their own district and have done some research and action research works.

The third section was regarding Infrastructure Proposal which includes the status of Non-Recurring Central Assistance received in the previous years. Civil works and equipment proposal was approved in 2012-13 and sanction was given. Civil works proposal amounting to Rs. 3122.29 lakhs were approved in 2013-14 but sanction for the same was not received.

The fourth section was regarding the Current Staff and Plan. It includes number of posts sanctioned as well as posts filled and posts vacant. There were 161 Academic posts in 8 DIETs of Mizoram and also 161 Para Academic posts, these para-academic staff were basically support staff or commonly known as office staff.

The fifth section was Function Wise Planning formats. It includes proposal for Pre-Service Programmes, Research and Action Research, Resource Centre and Documentation, Training programmes for teachers, BRC and CRC coordinators, VEC, SMC members, etc., Programmes Conducted for Faculty of DIET, Technology in Teacher Education and Innovations, Content & Material Development and On-Site Support.

The sixth section was Budget and Finance section which highlights the expenditure in the previous year and also the total proposal for the current year. This includes the Recurring as well the Non-Recurring Components.

The seventh section was regarding Estimated Expenditure on Salaries. The following table shows the components of central assistance which can be provided to DIET as per the provision of the CSSTE

Table 4.26

Central Assistance to DIET as per provision of CSSTE

Particular	Amount	Nature
EXISTING DIETs Strengthening of infrastructure/renovation of buildings including equipment, library and laboratories	Civil work as per State SORs and Equipment grant of Rs 20 lakh	Non-recurring
EXISTING DIETs Expenditure on salary, programs and activities and contingency	Program: Rs.30 lakhs Contingency: Rs.15 lakhs (including Rs 3 lakh for vehicle if not already provided) Faculty Development: Rs.5 lakhs Salary: Posts sanctioned and filled up after up-gradation	Recurring / year
NEW DIETs: Expenditure on infrastructure and equipment of new DIET	Civil work as per State SORs and Equipment grant of Rs 40 lakh for new DIET, Rs 30 lakh for up-graded DIET and Rs 10 lakh for upgraded DRC	Non-recurring
NEW DIETs: Expenditure on salary (for posts sanctioned and filled up after upgradation), programs and activities and contingency for meeting day to day expenses	Program: Rs.30 lakhs Contingency: Rs.15 lakhs (including Rs. 3 lakhs for vehicle if not already provided) Faculty Development: Rs.5 lakhs Salary: Posts sanctioned and filled up after up-gradation	Recurring /year
Technology Support to DIETs	One-time assistance upto Rs. 5 lakh per DIET for hardware support; Development of 50 teacher modules @ Rs. 10 lakh per module (to be developed by the Central Government) Upto Rs 70,000 for hub/switch;	

Note: The above financial norms have to be distributed between Central Assistance and State Share in the ratio 90:10 for NER and Himalayan Regions

Source: Teacher Education Planning Handbook 2013-14

The Perspective Plan was read in line with AWP of DIETs. It was found that the AWP prepared every year converge with the Perspective Plan prepared in 2012. The Perspective Plan and the corresponding AWP features both Recurring and Non-Recurring Components as shown in Table 4.5 above. The TEAB meeting minutes and the sanction letter thereof by the MHRD were also studied with respect to 8 DIETs of Mizoram in particular. The findings were discussed below:

DIETs: Financial Assistance from 2012-2017 (Non - Recurring)

Proposal for Non-Recurring Component was submitted in 2012-2013 and was approved by the TEAB on 29th Dec 2012. The 1st Installment was sanctioned on 26.02.2013 and the 2nd Installment was sanctioned on 01.06.2015. There was no other Non-Recurring component received by 8 DIETs in Mizoram during this plan period. The following table shows the financial assistance received by IASE Aizawl during the 12th Five-year Plan period.

Table 4.27

DIETs: Financial Assistance (Non - Recurring) (Rupees in lakhs)

S/N	Institution	Components (Non Recurring)	Central Assistance	Central Share 90%	State Share 10%
1.	2 DIETs	Civil Works	414.80	373.32	41.48
		Equipments	40.00	36.00	4.00
		Total	454.80	409.32	45.48
2.	6 DRCs	Civil Works	1485.78	1337.20	148.58
		Equipments	60.00	54.00	6.00
		Total	1545.78	1391.20	154.58

Source: Office records from SCERT Mizoram

In 2012-13, there were only 2 DIETs in Mizoram which were DIET Aizawl and DIET Lunglei, there were District Resource Centres (DRCs) or Telescopic DIETs in the rest of the 6 districts in Mizoram at that time. The proposal for 2 DIETs and 6 DRCs was heard on the 2nd TEAB held on 25th September 2012 at Shastri Bhavan, New Delhi in which Recurring Expenditures were approved. The TEAB for Non-Recurring Expenditures was held on 29th December 2012 wherein Central Assistance for Civil Works was approved as shown in Table 4.5 above. The Civil Works approved in this TEAB was for Hostel building for both DIET Aizawl and DIET Lunglei and Main Institute Building for the 6 DRCs.

On a closer scrutiny, it was found that sanction was given in two installments and the sanction for 2nd installment of Non-Recurring Expenditure was received after three years from approval i.e on 01.06.2015 only.

The TEAB minutes of 2013-14 shows that an amount of Rs 3122.29 lakh was approved for Civil Works of 8 DIETs but looking at the sanction letters for 2013-14 and also for the consequent years no sanction seems to have been received as such. There was no mention of spill over or revalidation of the approve amount in the following years.

DIETs - Financial Assistance from 2012-2017 (Recurring)

The following table shows the Recurring Central Assistance approved for DIETs in Mizoram by the TEAB from 2012-13 to 2017-18.

Table 4.28

DIETs: Financial Assistance (Recurring) (Rupees in lakhs)

S. No	Year	2012-13			2013-14			2014-15			2015-16			2016-17			2017-18		
	Components	**Total Approved**	**Central Share**	**State Share**	**Total Approved**	**Central Share**	**State Share**	**Total Approved**	**Central Share**	**State Share**	**Total Approved**	**Central Share**	**State Share**	**Total Approved**	**Central Share**	**State Share**	**Total Approved**	**Central Share**	**State Share**
1	Salaries	1138.34	1024.50	113.84	1272.24	1145.00	127.24	1508.47	1357.62	150.85	2570	2313	257	2387.39	2148.65	238.74	2092.88	1883.59	209.288
2	Programme and Activities				240.00	216.00	24.00	240	216	24	240	216	24	193.2	173.9	19.32	193.2	173.9	19.32
3	Technology Support in Teacher Education				69.60	62.64	6.96	16.00	14.40	1.60				16.00	14.40	1.60	16.00	14.40	1.60
4	Faculty Development	12.10	10.89	1.21	24.00	21.60	2.40										32.2	29	3.22
5	Contingencies	48.00	43.20	4.80	120.00	108.00	12.00												
6	In-Service Training and Action Research	111.00	99.90	11.10															
	Total	1309.44	1178.49	130.95	1725.84	1553.24	172.60	1764.47	1588.02	176.45	2810.00	2529.00	281.00	2596.59	2336.93	259.66	2334.28	2100.85	233.43

Source: Office records from SCERT Mizoram

Recurring Components were approved every year. The first year i.e 2012-13 the components approved were listed as In-Service Training and Action Research which were included in Programme and Activities in other years. The regular feature during these five years were Salaries and Programme and Activities.

The next table shows the sanction received by DIETs in Mizoram for CSSTE from 2012-2017 along with the sanction dates and amount sanctioned. It may be noted that sanction was given by the MHRD for Central Share only which was reflected in the following table. The state share was given by the state government the sanctioned amount and date of which was not included in the table.

Table 4.29

Sanction Received for DIETs in Mizoram under CSSTE (Rupees in lakhs)

Year	Approved by TEAB			Sanctioned by GOI				
				1st Installment		2nd Installment		
	Amount Approved	Central Share	State Share	Amount	Sanction Date	Amount	Sanction Date	Total
2012-2013	1309.44	1178.49	130.95	589.24	24.12.2012	484.70	22.03.2013	1073.94
2013-2014	1725.84	1553.24	172.60	711.82	01.08.2013	776.62	19.12.2013	1488.44
2014-2015	1764.47	1588.02	176.45	794.01	03.03.2015	794.01	18.06.2015	1588.02
2015-2016	2810.00	2529.00	281.00	1264.50	23.07.2015	1264.50	23.02.2016	2529.00
2016-2017	2596.59	2336.93	259.66	1168.46	30.12.2016			
2017-2018	2334.28	2100.85	233.43		03.08.2017		28.12.2017	

Source: Office records from SCERT Mizoram

Sanction from the Govt. of India was usually released in two installments within a financial year. There were instances when sanction was issued late; sanction was not issued in the calendar year of 2014, the first installment was issued on the last month of the financial year of 2014-15 and the second installment for 2014-15 was released three months after the financial year was over. No sanction was released for the second installment of the year 2016-17 till the date of writing this report. There was no separate institution wise break-up of sanction for the year 2017-18, the total amount sanction for the whole of Mizoram was shown separately.

IV. Grants Received under CSSTE by the state of Mizoram during 2012-2017

The Recurring and Non-Recurring grants received under CSSTE by the state of Mizoram during 2012-2017 was summarized in the following tables 4.30 to 4.36:

Table 4.30

Recurring grants under CSSTE in Mizoram during 2012 – 2013 (Rupees in lakhs)

2012-13		**Approved by TEAB**			**Sanctioned by GOI**		
Sl. No	**Institute**	**Total**	**Central Share**	**State Share**	**1st Inst.**	**2nd Inst.**	**Total**
1	DIET	1309.44	1178.49	130.95	589.24	484.70	1073.94
2	IASE	25.50	22.95	2.55	11.47	11.48	22.95
3	SCERT	35.71	32.13	3.58	16.06	16.07	32.13
	Total	**1370.65**	**1233.57**	**137.08**	**616.77**	**512.25**	**1129.02**

Source: Office records from SCERT Mizoram

Table 4.31

Recurring grants under CSSTE in Mizoram during 2013 – 2014 (Rupees in lakhs)

2013-14		Approved by TEAB			Sanctioned by GOI		
Sl. No	**Institute**	**Total**	**Central Share**	**State Share**	**1st Inst.**	**2nd Inst.**	**Total**
1	DIET	1725.84	1553.24	172.60	711.82	776.62	1488.44
2	IASE	40.00	36.00	4.00	11.25	18.00	29.25
3	SCERT	39.50	35.55	3.95	17.77	17.78	35.55
	Total	**1805.34**	**1624.79**	**180.55**	**740.84**	**812.40**	**1553.24**

Source: Office records from SCERT Mizoram

Table 4.32

Recurring grants under CSSTE in Mizoram during 2014 – 2015 (Rupees in lakhs)

2014-15		Approved by TEAB			Sanctioned by GOI		
Sl. No	**Institute**	**Total**	**Central Share**	**State Share**	**1st Inst.**	**2nd Inst.**	**Total**
1	DIET	1764.47	1588.02	176.45	794.01	794.01	1588.02
2	IASE	25.00	22.50	2.50	11.25	11.25	22.50
3	SCERT	32.95	29.66	3.29	14.83	14.83	29.66
	Total	**1822.42**	**1640.18**	**182.24**	**820.09**	**820.09**	**1640.18**

Source: Office records from SCERT Mizoram

Table 4.33

Recurring grants under CSSTE in Mizoram during 2015 – 2016 (Rupees in lakhs)

2015-16		Approved by TEAB			Sanctioned by GOI		
Sl. No	**Institute**	**Total**	**Central Share**	**State Share**	**1st Inst.**	**2nd Inst.**	**Total**
1	DIET	2810.00	2529.00	281.00	1264.50	1264.50	2529.00
2	IASE	14.42	12.98	1.44	6.49	6.49	12.98
3	SCERT	35.60	32.04	3.56	16.02	16.02	32.04
	Total	**2860.02**	**2574.02**	**286.00**	**1287.01**	**1287.01**	**2574.02**

Source: Office records from SCERT Mizoram

Table 4.34

Recurring grants under CSSTE in Mizoram during 2016 – 2017 (Rupees in lakhs)

2016-17		Approved by TEAB			Sanctioned by GOI		
Sl. No	**Institute**	**Total**	**Central Share**	**State Share**	**1st Inst.**	**2nd Inst.**	**Total**
1	DIET	2596.59	2336.93	259.66	1168.46		
2	IASE	138.99	125.09	13.90	62.55		
3	SCERT	33.80	30.42	3.38	15.21		
	Total	2769.38	2492.44	276.94	1246.22	0.00	0.00

Source: Office records from SCERT Mizoram

Table 4.35

Recurring grants under CSSTE in Mizoram during 2017 – 2018 (Rupees in lakhs)

2017-18		Approved by TEAB			Sanctioned by GOI		
Sl. No	**Institute**	**Total**	**Central Share**	**State Share**	**1st Inst.**	**2nd Inst.**	**Total**
1	DIET	2334.28	2100.85	233.43			
2	IASE	138.12	124.31	13.81			
3	SCERT	32.69	29.42	3.27	1271.37	423.80	1695.17
	S.Total	2505.09	2254.58	250.51			
	(MME)	45.09					
	Total	**2550.18**			**1271.37**	**423.80**	**1695.17**

Source: Office records from SCERT Mizoram

Table 4.36

Non - Recurring Expenditures under CSSTE in Mizoram during 2012 – 2017

2012-13						(Rupees in lakhs)
S/N	**Institution**	**Components**	**Total Approved**	**Central Share 90%**	**State Share 10%**	**Remarks**
1	Existing DIETs	Civil Works	414.8	373.32	41.48	1st installment Rs. 987.575 lakhs received in 2012-2013; 2nd installment Rs. 1049.115 lakhs received in 2015-16
		Equipment	40	36	4	
		Total	454.8	409.32	45.48	
2	6 DRCs	Civil Works	1485.78	1337.2	148.58	
		Equipment	60	54	6	
		Total	1545.78	1391.2	154.58	
3	IASE	Civil Works	25	22.5	2.5	
4	SCERT	Civil Works	175.68	158.11	17.57	
		Equipment	30	27	3	
		Est. of Cells	31.73	28.56	3.17	
		Total	237.41	213.67	23.74	
		Grand Total	2262.99	2036.69	226.3	

Source: Office records from SCERT Mizoram

From tables 4.30 to 4.36, it can be seen that sanction from the Govt. of India was received mostly in two installments. No sanction was released for the second installment of the year 2016-17. Salary component was released for DIETs and IASE only which shows that SCERT did not recruit staff to be supported under the scheme. Funds for Programmes and Activities were received every year from 2012 to 2017. These were the main regular features of funds received under Recurring component. Occasionally, funds for Faculty development, technology support, computer consumables and contingency were approved and sanctioned. Thus, maintenance of these institutes and the works that they did was majorly funded under CSSTE

Non-Recurring grants for SCERT, 8 DIETs and IASE Aizawl was sanctioned in two installments. The 1st installment was sanctioned in 26.02.2013 and the 2nd installment was sanctioned in 01.06.2015 after a gap of two years. No other non-recurring grant was received during the 12th Five-year plan period i.e from 2012 to 2017. However, on a closer scrutiny of the then TEAB minutes, it was found that an amount of Rs. 3122.29 lakhs for Civil Works of 8 DIETs and Rs 20 lakhs for Equipment of IASE Aizawl was approved in 2013. However, sanction was not given

and there was no further mention of the approved non-recurring expenditure for the year 2013-14.

All the TEIs have prepared their own Perspective plan for 2012-2017 and also Annual Work Plan and Budget for every year therein. It shows that institutional planning was done extensively. A bottom-up approach can be seen in the planning process rather than a centralized one although the compilation and submission of the consolidated plan was done by the SCERT.

Creation and filling up of posts as per the scheme seem to have been a backlog in implementing the scheme. During the period under study, proposal for creation and filling up of posts have been a regular feature in the Annual Work Plan and Budget and the corresponding TEAB have approved the proposals to a great extent but the state fails to create posts and also failed to fill vacant posts for a very prolonged period of time.

As per the guidelines DIETs were supposed to have 25 academic faculty per DIET and 24 Para-academic staff per DIET i.e. a total of 49 staff should be there in the DIET. For 8 DIETs in Mizoram there should be a total of 200 Academic posts, however there were only 161 Academic posts and also there should be 192 Para Academic posts and there were only 161 Para Academic posts created. There were 99 posts created in DIETs during 2012 – 2017. However, casual vacancy was not filled for a prolonged period of time. At the onset of upgrading TTI Lunglei to DIET in 1993, only 4 Senior Lecturer posts was created as against the DIET Guidelines which mention that there should be 7 Senior Lecturer posts in a DIET. Again, when 6 DRCs were upgraded to DIETs in 2013 there was no Senior Lecturer posts created and even at the end of the CSSTE these 6 DIETs were devoid of Senior Lecturer posts. Only DIET Aizawl have the required number of Senior Lecturer posts.

On a closer scrutiny, SCERT has proposed for creation and filling up of posts under CSSTE which was approved by the TEAB. However, creation and filling up of posts was to be done by the state government which fails to materialize during this period of study. In the case of IASE Aizawl, it took seven long years to start functioning as an IASE even after its upgradation from CTE in 2005 to 2012. Creation of posts and filling up of posts started late in 2016 for IASE Aizawl.

4.3.2 Problems and Challenges faced by Teacher Educators regarding CSSTE (through Opinionnaire):

The problems and challenges faced by teacher education in Mizoram was studied through a 'Teacher Education Administrators Opinionnaire on CSSTE' constructed by the researcher.

The 'Teacher Education Administrators Opinionnaire on CSSTE' consisted of two parts – Part I relates to the General Information about the institute and respondent and Part II relates to teacher education and the implementation of CSSTE.

There were 24 items/statement in Part II which were concerned with problems and challenges faced by stakeholders in the implementation of Centrally Sponsored Scheme of Teacher Education in Mizoram.

A three-point response scale were used - "Agree", "Partially Agree", and "Disagree" which was a "semantic differential scale" or a "bipolar scale".

The opinionnaire was divided into 4 dimensions such as Management, Teacher education programmes, Qualification and Infrastructure and each dimension contained a set of items concerned accordingly.

This opinionnaire was administered to the administrators or heads of the teacher education institutions within the state viz. Director of SCERT Mizoram, Principal of IASE Aizawl, Principal of DIET Aizawl, Principal of DIET Lunglei, Principal of DIET Saiha, Principal of DIET Champhai, Principal of DIET Kolasib, Principal of DIET Serchhip, Principal of DIET Lawngtlai and Principal of DIET Mamit.

The data was collected during the month of July and August 2024.

The opinionnaire in order to maintain coordination with the previous objective regarding changes taking place within the teacher education institutes was also divided into 4 dimensions for finding the changes taking place in teacher education institutions before and after 1989. Each dimension contained a set of items which were concerned with it. These dimensions were as below:

a) Management
b) Teacher education programmes
c) Qualification
d) Infrastructure

The findings under each dimension were placed as follows –

i. **Management:** This particular dimension comprised of 10 items. Findings were as below:

Table 4.37

Table showing findings under dimension of management

Sl. No.	Item/Statement	Responses		
		Agree	Partially Agree	Disagree
1	Teacher Education plan addresses the aims and objectives for quality teacher education.	9	1	
2	Our institute plays an important academic role at the state/district level.	10		
3	CSSTE has been fully implemented during 2012 – 2017.	2	8	
4	CSSTE has been able to strengthen our institution.	9	1	
5	There was an organizational structure as mandated by the Teacher Education guidelines.	1	9	
6	There was proper monitoring of CSSTE.		9	1
7	Adequate funds were received under the CSSTE	1	7	2
8	The fund flow was regular and timely received.		1	9
9	All the faculty were involved in the planning activities of our institute.	4	6	
10	Our institute also conduct activities not specified under the roles and functions in the Teacher Education guidelines.	8	1	1

Source: Survey

Table Analysis:

The breakdown of the responses as found in table 4.37 was given below:

1. Teacher Education plan: Most respondents (9) agree that the plan addresses quality teacher education aims and objectives.
2. Institutional role: Most respondents (10) agree that the institute plays an important academic role at the state/district level.
3. CSSTE implementation: Most respondents (8) disagree that CSSTE was fully implemented during 2012-2017, while 2 agree.
4. CSSTE impact: Most respondents (9) agree that CSSTE has strengthened the institution.
5. Organizational structure: Most respondents (9) disagree that there was an organizational structure as mandated by Teacher Education guidelines.
6. Monitoring of CSSTE: Most respondents (9) agree that there was proper monitoring of CSSTE.
7. Funding: Most respondents (7) disagree that adequate funds were received under CSSTE, while 2 partially agree, and 1 disagrees.
8. Fund flow: Most respondents (9) disagree that the fund flow was regular and timely received.
9. Faculty involvement: Most respondents (6) partially agree that all faculty were involved in planning activities.
10. Additional activities: Most respondents (8) agree that the institute conducts activities beyond those specified in the Teacher Education guidelines.

This report highlights areas of strength (CSSTE impact, monitoring, and additional activities) and weakness (organizational structure, funding, and fund flow).

ii. **Teacher education programme**: This particular dimension comprised of 7 items. Findings were as below:

Table 4.38

Table showing findings under dimension of teacher education programme

Sl. No.	Item/Statement	Responses		
		Agree	**Partially Agree**	**Disagree**
1	Curriculum and syllabus of the teacher education courses were revised according to NCFTE.	8	1	1
2	There were proper linkages and coordination among the TEIs.	8	2	
3	There was a Programme Advisory Committee for our institute.	5	4	1
4	There was a Research Committee in our institute.	4	4	2
5	There was provision for professional development of our faculty.	1	3	6
6	Programmes of our institute were approved by the Programme Advisory Committee.	1	4	5
7	There was sufficient number of faculty and supporting staff in our institute.			10

Source: Survey

Table Analysis: The breakdown of the responses as found in table 4.38 was given below:

1. Curriculum revision: Most respondents (8) agree that the curriculum and syllabus were revised according to the National Curriculum Framework for Teacher Education (NCFTE).

2. Linkages and coordination: Most respondents (8) agree that there were proper linkages and coordination among TEIs.

3. Programme Advisory Committee: A majority (5) agree, while 4 partially agree, and 1 disagrees that there was a Programme Advisory Committee.

4. Research Committee: The responses were divided, with 4 agreeing, 4 partially agreeing, and 2 disagreeing that there was a Research Committee.
5. Faculty professional development: Most respondents (6) disagree, while 1 agrees, and 3 partially agree that there was provision for faculty professional development.
6. Programme approval: Most respondents (5) disagree, while 1 agrees, and 4 partially agree that the programmes were approved by the Programme Advisory Committee.
7. Faculty and staff sufficiency: All respondents (10) agree that there was a sufficient number of faculty and supporting staff.

This report highlights areas of strength (curriculum revision, linkages, and faculty/staff sufficiency) and weakness (faculty professional development, programme approval, and research committee).

iii. Qualification: This particular dimension comprised of 4 items. Findings were as below:

Table 4.39

Table showing findings under dimension of qualification

Sl. No.	Item/Statement	Responses		
		Agree	**Partially Agree**	**Disagree**
1	There was a common cadre of Teacher Educators in which all TEIs under CSSTE was included.		3	7
2	There was a Recruitment/Placement Policy for Academic as well as Para/Non-Academic staff.	8	1	1
3	There were new posts created to fulfill the mandate of CSSTE during 2012-2017.	3	5	2
4	Restructuring and reorganization was done according to the Teacher Education guidelines.		3	7

Source: Survey

Table Analysis: The breakdown of the responses as found in table 4.39 was given below:

1. Common cadre of Teacher Educators: Most respondents (7) partially agree, while 3 agree, and 2 disagree that there was a common cadre of Teacher Educators.
2. Recruitment/Placement Policy: Most respondents (8) agree, while 1 partially agrees, and 1 disagrees that there was a Recruitment/Placement Policy for staff.
3. New posts created: Most respondents (5) partially agree, while 3 agree, and 2 disagree that new posts were created to fulfill the CSSTE mandate.
4. Restructuring and reorganization: Most respondents (7) partially agree, while 3 agree, that restructuring and reorganization were done according to Teacher Education guidelines.

This report highlights areas of partial agreement, indicating that while some progress has been made, there was still room for improvement in:

- Establishing a common cadre of Teacher Educators
- Creating new posts to fulfill CSSTE mandates
- Restructuring and reorganizing according to guidelines

However, there was stronger agreement on the existence of a Recruitment/Placement Policy.

iv. Infrastructure: This particular dimension comprised of 3 items. Findings were as below:

Table 4.40

Table showing findings under dimension of infrastructure

Sl. No.	Item/Statement	Responses		
		Agree	Partially Agree	Disagree
1	Our institute have prepared a five-year perspective plan for the 12th Five-year plan period i.e., 2012 – 2017	10		
2	Our institute has prepared a database about teachers and schools.	1	2	7
3	Our institute has an identified Lab Area.	3	2	5

Source: Survey

Table Analysis: The breakdown of the responses as found in table 4.40 was given below:

1. Five-year perspective plan: All respondents (10) agree that the institute has prepared a five-year perspective plan for the 12th Five-year plan period (2012-2017).
2. Database about teachers and schools: Most respondents (7) disagree, while 1 agrees, and 2 partially agree that the institute has prepared a database about teachers and schools.
3. Identified Lab Area: Most respondents (5) disagree, while 3 agree, and 2 partially agree that the institute has an identified Lab Area.

This report highlights areas of strength (five-year perspective plan) and weakness (database and lab area). The institute has a plan in place but needs to work on:

- Creating a database about teachers and schools
- Identifying and establishing a dedicated Lab Area

These areas require attention to enhance the institute's infrastructure and preparedness.

4.4. Objective-4: To examine the perception of teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram.

Hypothesis No. 1 states that teacher educators of Teacher Education Institutions in Mizoram have a positive perception about Total Quality Management of Teacher Education Institutions in Mizoram. The perception of teacher educators about Total Quality Management of each institution were analysed against the average perception scores of the teacher educators in the following 11 areas of quality indicators as follows:

Table 4.41

Analysis of perception of teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram

Institutio/ Sub-areas	DIET Aizawl	DIET Lunglei	DIET Saiha	DIET Champhai	DIET Kolasib	DIET Serchhip	DIET Lawngtlai	DIET Mamit	IASE Aizawl	Scores
Principal as Leader	7.46	9.94	10.90	11.50	12.09	7.00	11.33	12.50	17.00	**10.48**
Teacher Quality	7.92	9.56	8.80	12.00	8.82	7.44	10.00	9.13	15.44	**9.58**
Linkages and Interface	2.46	3.88	3.00	2.50	3.64	4.11	2.83	0.13	10.00	**3.50**
Students	7.25	8.38	8.60	8.40	8.09	7.44	9.00	7.88	11.67	**8.31**
Co-curricular Activities	9.63	11.06	6.50	9.60	11.91	10.67	13.17	8.63	14.89	**10.47**
Teaching	7.71	9.69	9.50	10.00	10.82	6.00	11.17	9.00	16.22	**9.64**
Office Management	4.83	8.50	7.30	9.90	7.82	7.78	11.50	4.63	9.44	**7.49**
Relationships	7.88	10.94	12.00	11.40	10.91	10.33	10.50	9.25	14.56	**10.48**
Material Resource	6.25	5.56	5.10	5.50	4.45	7.44	5.83	2.38	13.33	**6.17**
Examination	8.54	9.25	10.00	8.40	9.09	8.11	12.33	8.13	15.78	**9.62**
Job Satisfaction	5.96	8.06	8.00	8.70	8.91	6.78	7.33	5.88	15.67	**8.06**
Scores	**6.90**	**8.62**	**8.15**	**8.90**	**8.78**	**7.56**	**9.55**	**7.05**	**14.00**	**8.53**

Source: Survey

In order to obtain the most reliable and comprehensive information, table 4.41 may be analysed under two main sub-themes/points as follows:

i. Overall score of institutions:

Considering the perception of teacher educators across institutions from table 4.1 above, it was found that IASE Aizawl have the strongest perception about Total Quality Management with their strongest area being principal as leader with an average score of 17.00, which was found to be the highest average score among all the institutions under study. Their weakest area lies in office management with average score of 9.44. Within their own institution, the cut-off point was 14.00 and hence the weak areas of IASE Aizawl were found to be linkages and interface, students, office management and material resources.

DIET Aizawl was found to have the weakest perception and their strongest area being co-curricular activities with an average score of 9.63. Within their own institution, the cut-off point was 6.90 and the weak areas of DIET Aizawl were found to be linkages and interface, office management, material resources and job satisfaction. Their weakest area lies in linkages and interface with an average score of 2.46.

Within their own institution, the cut-off point for DIET Lunglei was 8.62. Similar to DIET Aizawl their strongest area was found to be co-curricular activities with an average score of 11.06 and weakest area was found to be linkages and interface with an average score of 3.88.

The cut-off point for DIET Saiha was 8.15. Their strongest area was found to be relationships with an average score of 12.00 and the weakest area was found to be linkages and interface with an average score of 3.00.

The cut-off point for DIET Champhai was 8.90. Their strongest area was found to be teacher quality with an average score of 12.00 and the weakest area was found to be linkages and interface with an average score of 2.50.

The cut-off point for DIET Kolasib was 8.78. Their strongest area was found to be principal as leader with an average score of 12.09 and the weakest area was found to be linkages and interface with an average score of 3.64.

The cut-off point for DIET Serchhip was 7.56. Their strongest area was found to be co-curricular activities with an average score of 10.67 and the weakest area was found to be linkages and interface with an average score of 4.11.

The cut-off point for DIET Lawngtlai was 9.55. Their strongest area was found to be co-curricular activities with an average score of 13.17 and the weakest area was found to be linkages and interface with an average score of 2.83.

The cut-off point for DIET Mamit was 7.05. Their strongest area was found to be principal as leader with an average score of 12.50 and the weakest area was found to be linkages and interface with an average score of 0.13 which was found to be the lowest average score among all the institutions under study.

ii. Institutional scores under different sub-area/dimension

a. Principal as Leader: Since the perception was based on average, the average score of the institutions which falls at 10.48 regarding this particular sub-area was much higher than the average overall score of 8.53. This indicates a strong area which may be interpreted as institutions having good/strong leaders.

b. Teacher Quality: The average score of the institutions falls at 9.58 regarding this particular sub-area and was also higher than the average overall score of 8.53. This indicates a strong area which may be interpreted as the teacher quality in these institutions were good.

c. Linkages and Interface: The average score of the institutions falls at 3.50 regarding this sub-area which was the lowest score among the sub-areas much lower than the average overall score of 8.53. It indicates a weak area which may be interpreted as poor connections with external organizations or communities.

d. Students: The average score of the institutions falls at 8.31 regarding this particular sub-area which was almost similar to the average overall score of 8.53. It can be interpreted as neither strong nor weak and indicates that the institutions have mostly average performing students.

e. Co-curricular activities: The average score of the institutions falls at 10.47 regarding this particular sub-area which was much higher than the average overall score of 8.53. This indicates a strong area which may be interpreted as excellent performance in extracurricular activities of these institutions.

f. Teaching: The average score of the institutions falls at 9.64 regarding this particular sub-area which was also higher than the average overall score of

8.53. This indicates a strong area which may be interpreted as effective teaching performance of these institutions.

g. Office Management: The average score of the institutions in this sub-area falls at 7.49 and was lower than the average overall score of 8.53. This indicates a weak area which may be interpreted as poor management in administrative tasks.
h. Relationships: The average score of the institutions falls at 10.48 in this sub-area which was the highest score alongside Principal as leader and was much higher than the average overall score of 8.53. This indicates a strong area which may be interpreted as good relationship among the staff of these institutions.
i. Material Resource: The average score of the institutions falls at 6.17 regarding this particular sub-area which was lower than the average overall score of 8.53. This indicates a weak area which indicate inadequate resources or infrastructure available in these institutions.
j. Examination: The average score of the institutions falls at 9.62 regarding this particular sub-area which was also higher than the average overall score of 8.53. This indicates a strong area which may be interpreted as institutions having good performance in examinations.
k. Job Satisfaction: The average score of the institutions was 8.06 for this sub-area and was lower than the average overall score of 8.53 indicating a slightly weak area which indicate moderate satisfaction levels among staff in the institutions.

The overall score of teacher educators of various Teacher Education Institutions as shown in Table 4.41 was positive for all the sub-areas as well as for each institution albeit a chance of being a negative average score as per the test score which indicates that teacher educators of Teacher Education institutions in Mizoram have a positive perception about Total Quality Management of Teacher Education Institutions in Mizoram and thus the first hypothesis was supported and accepted.

4.5. Objective-5: To compare the perception of male and female teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram.

To compare the perception of teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram the hypothesis No. 2 which states that there was a significant difference between the perception of male and female teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram was converted into a null hypothesis which states ‘there was no significant difference between the perception of male and female teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram’.

In order to verify the null hypothesis, the perception of teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram was studied with reference to their gender. For this, the mean and standard deviation of the scores of both male and female groups were calculated. Then, t-test was carried out to find out the significant difference in the means between the male and female teacher educators. The following Table 4.42 shows the group statistics and Table 4.43 shows the comparison of the perception of male and female teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram.

Table 4.42

Group statistics between male and female teacher educators about their perception of Total Quality Management

Gender	N	Mean	Std. Deviation
Male	38	8.1726	4.24332
Female	65	8.7323	4.68253

Table 4.43

Comparison between male and female teacher educators about their perception of Total Quality Management

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
TQM	Equal variances assumed	.144	.705	-.605	101	.546	-.5597	.924	-2.393	1.274
	Equal variances not assumed			-.621	83.861	.536	-.5597	.901	-2.351	1.231

Not Significant

From Tables No. 4.2 and 4.3 above, there were 38 male and 65 female teacher educators and the mean score of male teacher educators was 8.1726 and 8.7323 for female teacher educators and their mean difference was 0.5597.

Levene's Test for Equality of Variances indicates that F = 0.144 which was the calculated F-statistic from Levene's test. Since the p-value (0.705) was greater than the significance level (0.05), the null hypothesis of equal variances was accepted, indicating that the variances were likely equal. Hence, equal variances assumed was considered for t-test for Equality of Means. Thus, the calculated t value = 0.605 with df (degrees of freedom) = 101 was less than the critical t-value of 1.984 at 0.05 level of confidence, the null hypothesis was accepted. Also, Sig. (p-value, 2-tailed) = 0.546 was greater than 0.05, indicating that there was no statistically significant difference between the TQM values of males and females. The Std. Error Difference (SED) of

0.924 was relatively small which indicate that the difference between the means was estimated with a relatively high degree of precision. There was 95% confidence that the true difference in means lies between -2.393 and 1.274 and since this interval includes 0, it suggests that the difference was not statistically significant.

The t-test examines if the means of the two groups were equal. The p-values were greater than 0.05, indicating that the null hypothesis of equal means should not be rejected. The confidence intervals also include zero, suggesting no significant difference between the means. Hence, the null hypothesis which states that ‘there was no significant difference between the perception of male and female teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram’ was confirmed and accepted.

4.6. Objective-6: To examine the perception of teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram.

The third hypothesis states that teacher trainees of Teacher Education institutions in Mizoram have a positive perception about Total Quality Management of Teacher Education Institutions in Mizoram. The perception of teacher trainees about Total Quality Management was analysed against the average perception scores of the teacher trainees in the following 11 areas of quality indicators as follows:

Table 4.44

Analysis of perception of teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram

Institution/ Sub-Areas	DIET Aizawl	DIET Lunglei	DIET Saiha	DIET Champhai	DIET Kolasib	DIET Serchhip	DIET Lawngtlai	DIET Mamit	IASE Aizawl	Scores
Principal as Leader	8.55	12.09	7.73	10.76	9.82	10.41	8.45	8.32	11.91	9.60
Teacher Quality	8.06	9.74	9.50	10.60	9.16	8.88	9.04	6.77	10.21	8.92
Linkages and Interface	2.04	2.45	0.81	1.71	2.93	1.28	2.00	1.64	4.25	2.22
Students	6.47	7.59	6.00	9.40	6.50	7.63	7.44	4.45	9.26	7.12
Co-curricular Activities	7.05	7.22	6.00	9.67	7.93	8.81	7.62	4.52	8.25	7.41
Teaching	6.62	9.14	7.77	10.52	7.04	9.34	8.55	7.32	6.60	7.79
Office Management	3.66	4.55	6.50	7.57	5.34	6.41	5.47	3.30	4.77	4.88
Relationships	6.03	10.00	7.81	9.98	6.98	8.16	7.08	5.50	8.40	7.42
Material Resource	5.41	5.95	5.88	8.17	5.98	7.09	5.77	2.82	7.58	5.92
Examination	4.22	4.10	5.81	8.12	5.63	6.00	6.37	4.64	3.81	5.14
Job Satisfaction	7.91	10.62	9.15	10.55	9.63	10.94	8.78	7.20	8.23	8.93
Scores	**6.00**	**7.59**	**6.63**	**8.82**	**6.99**	**7.72**	**6.96**	**5.13**	**7.57**	**6.85**

Source: Survey

In order to obtain the most reliable and comprehensive information, Table 4.44 may be analysed under two main sub-themes/points as follows:

i. Overall score of institutions:

Considering all the 10 Teacher Education Institutions, the cut-off point was 6.85. The overall score of teacher trainees across teacher education institutions indicates that the areas falling under the cut-off point were the weak areas and those above the cut-off point were the strong areas. The weak areas of teacher education institution as per teacher trainees were linkage and interface, office management, material resource and examination. The areas above the cut-off point were identified as strong areas which were principal as leader, teacher quality, student quality, co-curricular activities, teaching, relationships and job satisfaction. Principal as a leader was the strongest area of the teacher education institutions with average score of 9.60 while the weakest area of the teacher education institutions was linkages and interface with an average score of 2.22.

Considering the perception of teacher trainees across institutions from table 4.4 above, it was found that DIET Aizawl was found to have a weak perception regarding total quality management as the average score for each sub-area fall below the cut-off point for each sub-area. Within their own institution, the cut-off point for DIET Aizawl was 6.00, their strongest area being principal as leader with an average score of 8.55, the weak areas of DIET Aizawl were found to be linkages and interface, office management, material resources and examination. Their weakest area lies in linkages and interface with an average score of 2.04.

Within their own institution, the cut-off point for DIET Lunglei was 7.59. Similar to DIET Aizawl their strongest area was found to be principal as leader with an average score of 12.09 which was found to be the highest average score among all the institutions under study and their weakest area was found to be linkages and interface with an average score of 2.45.

The cut-off point for DIET Saiha was 6.63. Their strongest area was found to be teacher quality with an average score of 9.50 and the weakest area was found to be linkages and interface with an average score of 0.81 which was found to be the lowest average score among all the institutions under study.

DIET Champhai have the strongest perception about Total Quality Management with their cut-off point being 8.82. Their strongest area was found to be

principal as leader with an average score of 10.76 and the weakest area was found to be linkages and interface with an average score of 1.71.

The cut-off point for DIET Kolasib was 6.99. Their strongest area was found to be principal as leader with an average score of 9.82 and the weakest area was found to be linkages and interface with an average score of 2.93.

The cut-off point for DIET Serchhip was 7.72. Their strongest area was found to be job satisfaction with an average score of 10.94 and the weakest area was found to be linkages and interface with an average score of 1.28.

The cut-off point for DIET Lawngtlai was 6.96. Their strongest area was found to be teacher quality with an average score of 9.04 and the weakest area was found to be linkages and interface with an average score of 2.00.

DIET Mamit have the weakest perception about Total Quality Management with their cut-off point being 5.13. Similar to DIET Aizawl all the sub-areas fall below the cut-off points. Still, their strongest area was found to be principal as leader with an average score of 8.32 and the weakest area was found to be linkages and interface with an average score of 1.64.

The cut-off point for IASE Aizawl was 7.57. Their strongest area was found to be principal as leader with an average score of 11.91 and the weakest area was found to be examination with an average score of 3.81.

iii. Institutional scores under different sub-area/dimension

a. Principal as Leader: Since the perception was based on average, the average score of the institutions which falls at 9.60 regarding this particular sub-area was much higher than the average overall score of 6.85. This indicates a strong area which may be interpreted as institutions having good/strong leaders.

b. Teacher Quality: The average score of the institutions falls at 8.92 regarding this particular sub-area and was also higher than the average overall score of 6.85. This indicates a strong area which may be interpreted as the teacher quality in these institutions were good.

c. Linkages and Interface: The average score of the institutions falls at 2.22 regarding this sub-area which was the lowest score among the sub-areas much lower than the average overall score of 6.85. It indicates a weak area which

may be interpreted as poor connections with external organizations or communities.

d. Students: The average score of the institutions falls at 7.12 regarding this particular sub-area which was slightly higher than the average overall score of 6.85. This indicates a strong area and may be interpreted as moderately good performance in student-related areas.
e. Co-curricular activities: The average score of the institutions falls at 7.41 regarding this particular sub-area which was higher than the average overall score of 6.85. This indicates a slightly strong area which may be interpreted as good performance in extracurricular activities of these institutions.
f. Teaching: The average score of the institutions falls at 7.79 regarding this particular sub-area which was also higher than the average overall score of 6.85. This indicates a strong area which may be interpreted as good teaching performance of these institutions.
g. Office Management: The average score of the institutions in this sub-area falls at 4.88 and was lower than the average overall score of 6.85. This indicates a weak area which may be interpreted as inefficient administration and that there was room for improvement in administrative tasks.
h. Relationships: The average score of the institutions falls at 7.42 in this sub-area which was higher than the average overall score of 6.85. This indicates a strong area which may be interpreted as good relationship among the stakeholders.
i. Material Resource: The average score of the institutions falls at 5.92 regarding this particular sub-area which was lower than the average overall score of 6.85. This indicates a weak area which may be interpreted as inadequate resources or infrastructure available in these institutions.
j. Examination: The average score of the institutions falls at 5.14 regarding this particular sub-area which was also lower than the average overall score of 6.85. This indicates a weak area which may be interpreted as institutions having poor performance in examinations.
k. Job Satisfaction: The average score of the institutions was 8.93 for this sub-area and was higher than the average overall score of 6.85 indicating a strong

area and may be interpreted as high satisfaction levels among staff in the institutions.

The overall score of teacher trainees of various Teacher Education Institutions as shown in Table 4.4 was positive for the sub-areas as well as for each institution albeit a chance of being a negative average score as per the test score which indicates that Teacher trainees of Teacher Education Institutions in Mizoram have a positive perception about Total Quality Management of Teacher Education Institutions in Mizoram and thus the third hypothesis was confirmed and accepted.

4.7. Objective-7: To compare the perception of male and female teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram.

To compare the perception of teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram the hypothesis No. 4 which states that there was a significant difference between the perception of male and female teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram was converted into a null hypothesis which states ‘there was no significant difference between the perception of male and female teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram’.

In order to verify the null hypothesis, the perception of teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram was studied with reference to their gender. For this, the mean and standard deviation of the scores of both male and female groups were calculated. Then, t-test was carried out to find out the significant difference in the means between the male and female teacher trainees. The following Table 4.45 shows the group statistics and Table 4.6 shows the comparison of the perception of male and female teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram.

Table 4.45

Group statistics between male and female teacher trainees about their perception of Total Quality Management

Gender	N	Mean	Std. Deviation
Male	208	5.8369	4.03321
Female	331	7.4865	4.21176

Table 4.46

Comparison between male and female teacher trainees about their perception of Total Quality Management

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
TQM	Equal variances assumed	.483	.488	-4.499	537	.000	-1.64959	.36665	-2.3698	-.9294
	Equal variances not assumed			-4.544	454.136	.000	-1.64959	.36304	-2.3630	-.9362

From Tables No. 4.45 and 4.46 above, there were 208 male and 331 female teacher trainees and the mean score of male teacher trainees was 5.8369 and 7.4865 for female teacher trainees and their mean difference was 1.64959.

Levene's Test for Equality of Variances indicates that F = 0.483 which was the calculated F-statistic from Levene's test. Since the p-value (0.488) was greater than the significance level (0.05), the null hypothesis of equal variances was accepted, indicating that the variances were likely equal. Hence, equal variances assumed was considered for t-test for Equality of Means.

The calculated t value = 4.499 with df (degrees of freedom) = 537 was greater than the critical t-value of 1.984 at 0.05 level of confidence, the null hypothesis was rejected. Also, Sig. (p-value, 2-tailed) = 0.000 was less than 0.05, indicating strong evidence against the null hypothesis, suggesting that there was a statistically significant difference between the TQM values of males and females.

The Std. Error Difference (SED) of 0.367 was relatively small which indicate that the difference between the means was estimated with a relatively high degree of precision. There was 95% confidence that the true difference in means lies between -2.3698 and -0.9294 and since this interval did not include 0, it reinforces that the difference was significant.

The t-test examines if the means of the two groups were equal. The p-value was less than 0.05, indicating that the null hypothesis of equal means was rejected. The mean difference was significant, with male teacher trainees having a lower mean than those of female teacher trainees. This indicate that female teacher trainees have a more positive perception about Total Quality Management of Teacher Education Institutions in Mizoram. Hence, the null hypothesis which states that ‘there was no significant difference between the perception of male and female teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram’ was rejected.

4.8. Objective-8: To compare the perception of various Teacher Education Institutions about Total Quality Management of Teacher Education Institutions in Mizoram.

The perception of various Teacher Education Institutions about Total Quality Management of Teacher Education Institutions in Mizoram was compared using data collected from teacher educators. One-way ANOVA was carried out using SPSS. Since the analysis showed a significant difference post hoc analysis was done using Tukey HSD to further identify the differences across various teacher education institutions.

Table 4.47

Descriptives of Teacher Education Institutions about Total Quality Management

Institutions	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
DIET Aizawl	24	6.8975	4.57837	.93456	4.9642	8.8308	-2.82	15.27
DIET Lunglei	16	8.6194	5.46092	1.36523	5.7095	11.5293	-.64	16.45
DIET Saiha	10	8.1550	3.74069	1.18291	5.4791	10.8309	2.82	14.45
DIET Champhai	10	8.8980	3.18399	1.00687	6.6203	11.1757	4.27	13.36
DIET Kolasib	11	8.7773	3.51371	1.05942	6.4167	11.1378	1.64	14.00
DIET Serchhip	9	7.5556	4.28025	1.42675	4.2655	10.8457	1.00	12.09
DIET Lawngtlai	6	9.5433	3.45125	1.40897	5.9215	13.1652	4.27	13.82
DIET Mamit	8	7.0463	4.98919	1.76394	2.8752	11.2173	.18	12.55
IASE Aizawl	9	14.0000	2.67927	.89309	11.9405	16.0595	8.18	17.36
Total	**103**	**8.5258**	**4.51251**	**.44463**	**7.6439**	**9.4077**	**-2.82**	**17.36**

Table 4.48

One-way ANOVA for comparing Teacher Education Institutions about Total Quality Management

Groups	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	369.128	8	46.141	2.540	.015
Within Groups	1707.868	94	18.169		
Total	2076.996	102			

The descriptives of teacher education institutions was shown in Table 4.47 which shows that according to the compare means procedure, the valid sample size was 103. The means vary across institutions, ranging from 6.8975 (DIET Aizawl) to 14.0000 (IASE Aizawl). The standard deviations also vary, indicating different levels of variability across institutions.

On perusal of the above Table 4.8 which shows One-way ANOVA for comparing Teacher Education Institutions about Total Quality Management it can be inferred that a significant difference exists between group means (p-value = 0.015 < 0.05). Also, the F-statistic (2.540) was greater than 1, indicating more variance between groups than within groups. The majority of the variance was within groups (Sum of Squares = 1707.868) rather than between groups (Sum of Squares = 369.128). This suggests that while there was a significant difference between group means, the variance within groups was relatively large compared to the variance between groups.

Since there was a statistically significant difference among the means of the institutions a post hoc analysis was done using Tukey's multiple comparisons test which was shown in the following Table 4.9.

Table 4.49

Tukey's multiple comparisons for examining the perception of teacher educators of various Teacher Education Institutions about Total Quality Management

(I) Institution	(J) Institution	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
DIET Aizawl	DIET Lunglei	-1.72187	1.37571	.942	-6.0901	2.6464
	DIET Saiha	-1.25750	1.60434	.997	-6.3517	3.8367
	DIET Champhai	-2.00050	1.60434	.944	-7.0947	3.0937
	DIET Kolasib	-1.87977	1.55201	.952	-6.8078	3.0483
	DIET Serchhip	-.65806	1.66607	1.000	-5.9483	4.6321
	DIET Lawngtlai	-2.64583	1.94555	.910	-8.8235	3.5318
	DIET Mamit	-.14875	1.74015	1.000	-5.6742	5.3767
	IASE Aizawl	-7.10250*	1.66607	.002	-12.3927	-1.8123
DIET Lunglei	DIET Aizawl	1.72187	1.37571	.942	-2.6464	6.0901
	DIET Saiha	.46438	1.71826	1.000	-4.9916	5.9203
	DIET Champhai	-.27862	1.71826	1.000	-5.7346	5.1773
	DIET Kolasib	-.15790	1.66951	1.000	-5.4590	5.1432
	DIET Serchhip	1.06382	1.77604	1.000	-4.5756	6.7032
	DIET Lawngtlai	-.92396	2.04051	1.000	-7.4031	5.5552
	DIET Mamit	1.57312	1.84571	.995	-4.2875	7.4337
	IASE Aizawl	-5.38062	1.77604	.074	-11.0200	.2588
DIET Saiha	DIET Aizawl	1.25750	1.60434	.997	-3.8367	6.3517
	DIET Lunglei	-.46438	1.71826	1.000	-5.9203	4.9916
	DIET Champhai	-.74300	1.90624	1.000	-6.7958	5.3098
	DIET Kolasib	-.62227	1.86242	1.000	-6.5359	5.2914
	DIET Serchhip	.59944	1.95848	1.000	-5.6192	6.8181
	DIET Lawngtlai	-1.38833	2.20114	.999	-8.3775	5.6009
	DIET Mamit	1.10875	2.02188	1.000	-5.3112	7.5287
	IASE Aizawl	-5.84500	1.95848	.083	-12.0637	.3737

DIET Champhai	DIET Aizawl	2.00050	1.60434	.944	-3.0937	7.0947
	DIET Lunglei	.27862	1.71826	1.000	-5.1773	5.7346
	DIET Saiha	.74300	1.90624	1.000	-5.3098	6.7958
	DIET Kolasib	.12073	1.86242	1.000	-5.7929	6.0344
	DIET Serchhip	1.34244	1.95848	.999	-4.8762	7.5611
	DIET Lawngtlai	-.64533	2.20114	1.000	-7.6345	6.3439
	DIET Mamit	1.85175	2.02188	.992	-4.5682	8.2717
	IASE Aizawl	-5.10200	1.95848	.199	-11.3207	1.1167
DIET Kolasib	DIET Aizawl	1.87977	1.55201	.952	-3.0483	6.8078
	DIET Lunglei	.15790	1.66951	1.000	-5.1432	5.4590
	DIET Saiha	.62227	1.86242	1.000	-5.2914	6.5359
	DIET Champhai	-.12073	1.86242	1.000	-6.0344	5.7929
	DIET Serchhip	1.22172	1.91585	.999	-4.8616	7.3050
	DIET Lawngtlai	-.76606	2.16330	1.000	-7.6351	6.1030
	DIET Mamit	1.73102	1.98061	.994	-4.5579	8.0200
	IASE Aizawl	-5.22273	1.91585	.153	-11.3060	.8606
DIET Serchhip	DIET Aizawl	.65806	1.66607	1.000	-4.6321	5.9483
	DIET Lunglei	-1.06382	1.77604	1.000	-6.7032	4.5756
	DIET Saiha	-.59944	1.95848	1.000	-6.8181	5.6192
	DIET Champhai	-1.34244	1.95848	.999	-7.5611	4.8762
	DIET Kolasib	-1.22172	1.91585	.999	-7.3050	4.8616
	DIET Lawngtlai	-1.98778	2.24653	.993	-9.1211	5.1455
	DIET Mamit	.50931	2.07120	1.000	-6.0673	7.0859
	IASE Aizawl	-6.44444*	2.00936	.046	-12.8247	-.0642
DIET Lawngtlai	DIET Aizawl	2.64583	1.94555	.910	-3.5318	8.8235
	DIET Lunglei	.92396	2.04051	1.000	-5.5552	7.4031
	DIET Saiha	1.38833	2.20114	.999	-5.6009	8.3775
	DIET Champhai	.64533	2.20114	1.000	-6.3439	7.6345
	DIET Kolasib	.76606	2.16330	1.000	-6.1030	7.6351
	DIET Serchhip	1.98778	2.24653	.993	-5.1455	9.1211

	DIET Mamit	2.49708	2.30201	.975	-4.8124	9.8066
	IASE Aizawl	-4.45667	2.24653	.558	-11.5900	2.6766
DIET Mamit	DIET Aizawl	.14875	1.74015	1.000	-5.3767	5.6742
	DIET Lunglei	-1.57312	1.84571	.995	-7.4337	4.2875
	DIET Saiha	-1.10875	2.02188	1.000	-7.5287	5.3112
	DIET Champhai	-1.85175	2.02188	.992	-8.2717	4.5682
	DIET Kolasib	-1.73102	1.98061	.994	-8.0200	4.5579
	DIET Serchhip	-.50931	2.07120	1.000	-7.0859	6.0673
	DIET Lawngtlai	-2.49708	2.30201	.975	-9.8066	4.8124
	IASE Aizawl	-6.95375*	2.07120	.030	-13.5303	-.3772
IASE Aizawl	DIET Aizawl	7.10250*	1.66607	.002	1.8123	12.3927
	DIET Lunglei	5.38062	1.77604	.074	-.2588	11.0200
	DIET Saiha	5.84500	1.95848	.083	-.3737	12.0637
	DIET Champhai	5.10200	1.95848	.199	-1.1167	11.3207
	DIET Kolasib	5.22273	1.91585	.153	-.8606	11.3060
	DIET Serchhip	6.44444*	2.00936	.046	.0642	12.8247
	DIET Lawngtlai	4.45667	2.24653	.558	-2.6766	11.5900
	DIET Mamit	6.95375*	2.07120	.030	.3772	13.5303

*. The mean difference was significant at the 0.05 level.

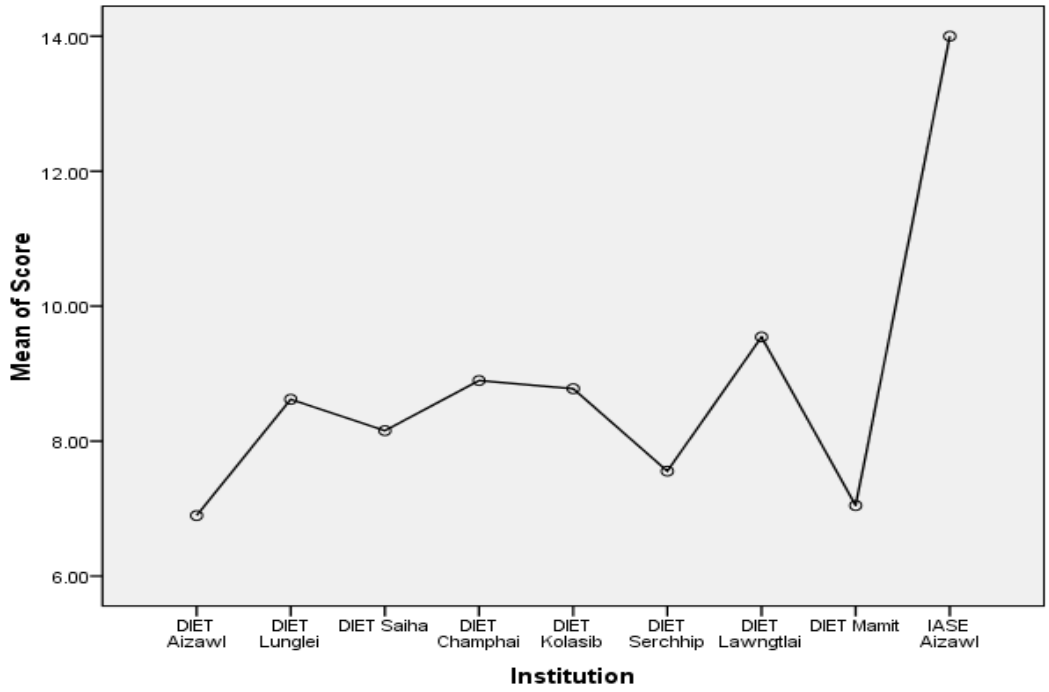


Figure 4.1: Means plot of TQM score of various Teacher Education Institutions

Based on the Tukey's multiple comparisons test results in the above Table 4.49 it can be seen that IASE Aizawl has a significantly higher mean than:

- DIET Aizawl (mean difference = 7.10250, p-value = 0.002)
- DIET Serchhip (mean difference = 6.44444, p-value = 0.046)
- DIET Mamit (mean difference = 6.95375, p-value = 0.030)

There were no significant mean differences between IASE Aizawl and the other institutions (DIET Lunglei, DIET Saiha, DIET Champhai, DIET Kolasib, and DIET Lawngtlai). All other pairwise comparisons have adjusted P values greater than 0.05, indicating no significant differences between those pairs of institutions. These findings suggest that specific institution (IASE, Aizawl in particular) have significantly higher Total Quality Management values compared to others in the study.

4.9. Objective-9: To compare the perception of Teacher Trainees and Teacher Educators about Total Quality Management of Teacher Education Institutions in Mizoram.

To compare the perception of teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram the hypothesis No. 5 which states that there was a significant difference between the perception of teacher trainees and teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram was converted into a null hypothesis which states 'there was no significant difference between the perception of teacher trainees and teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram'.

In order to verifythe null hypothesis, the perception of both teacher trainees and teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram was studied. For this, the mean and standard deviation of the scores of teacher trainees and teacher educators were calculated. Then, t-test was carried out to find out the significant difference in the means between teacher trainees and teacher educators. The following Table 4.50 shows the group statistics and Table 4.51 shows comparison of the perception of teacher trainees and teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram.

Table 4.50

Group statistics between teacher trainees and teacher educators about their perception of Total Quality Management

Type	N	Mean	Std. Deviation
Teacher Trainees	539	6.8499	4.21729
Teacher Educators	103	8.5258	4.51251

Table 4.51

Comparison between teacher trainees and teacher educators about their perception of Total Quality Management

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
TQM	Equal variances assumed	.840	.360	-3.654	640	.000	-1.67594	.45872	-2.57671	-.77516
	Equal variances not assumed			-3.489	138.161	.001	-1.67594	.48031	-2.62564	-.72624

From Tables No. 4.50 and 4.51 above, there were 539 teacher trainees and 103 teacher educators and the mean score of teacher trainees was 6.8499 and 8.5258 for teacher educators and their mean difference was 1.67594.

Levene's Test for Equality of Variances indicates that F = 0.840 which was the calculated F-statistic from Levene's test. Since the p-value (0.360) was greater than the significance level (0.05), the null hypothesis of equal variances was accepted, indicating that the variances were likely equal. Hence, equal variances assumed was considered for t-test for Equality of Means.

The calculated t value = 3.654 with df (degrees of freedom) = 640 was greater than the critical t-value of 1.984 at 0.05 level of confidence, the null hypothesis was rejected. Also, Sig. (p-value, 2-tailed) = 0.000 was less than 0.05, indicating strong evidence against the null hypothesis, suggesting that there was a statistically significant difference between the TQM values of males and females.

The Std. Error Difference (SED) of 0.45872 was relatively small which indicate that the difference between the means was estimated with a relatively high degree of precision. There was 95% confidence that the true difference in means lies between -2.57671 and -0.77516 and since this interval did not include 0, it reinforces that the difference was significant.

The t-test examines if the means of the two groups were equal. The p-value was less than 0.05, indicating that the null hypothesis of equal means was rejected. The mean difference was significant, with teacher trainees having a lower mean than teacher educators. Hence, the null hypothesis which states that ‘there was no significant difference between the perception of teacher trainees and teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram’ was rejected.

CHAPTER V
SUMMARY AND CONCLUSIONS

This chapter describe the findings on the study of Centrally Sponsored Scheme of Teacher Education and Total Quality Management of Teacher Education Institutions in Mizoram. The summary of the study, major findings, discussion of the results and conclusion of the present investigation along with suggestion for further research were discussed in this chapter.

One of the main components of the CSSTE as revised for the 12th Five Year Plan was "Strengthening and up-gradation of State Councils for Educational Research and Training/State Institutes of Education. Strengthening of existing IASEs and up-gradation of Departments of Education of Universities into IASEs and Strengthening of existing DIETs and extending their mandate for training of teachers at the secondary level". The Scheme was revised in order to meet the exceptional challenges for the Teacher Education system arising from the massive spatial and numerical expansion of schooling facilities at the elementary and secondary levels and the corresponding increase in the demand for teachers.

The Government of India brought out a guideline to be followed by all the states in June 2012 known as Restructuring and Re-organisation of the Centrally Sponsored Scheme on Teacher Education (CSSTE), Guidelines for Implementation, June 2012. The Guidelines reiterates that each SCERT should function as lead state level academic institution and it has spelt out a modified vision for SCERT which includes – Academic Authority under Section 29 of RTE Act; Undertake policy research and advise state government on policy formulation to school education and elementary teacher Education; Preparation of Curriculum and Textbooks in all curricular areas for all levels of school education and prototype teaching-learning materials including ICT for all levels of schools and teacher education; Evolve meaningful short and long term teacher education programme for secondary, senior secondary teachers, ECCE practitioners, administrators and teacher educators. SCERT was also envisioned to offer doctoral and post graduate programes in education /teacher education; Community and children's outreach programme and network for ground experience and issues. SCERT was to be a nodal agency and should establish

proper coordination and collaborate with all statutory bodies in education. The same guideline mentioned that the core institutional focus of a DIET was continuous teacher professional development, which would directly/indirectly impact on school improvement programmes. The focus areas visualized for the DIETs were based on NCF 2005, NCFTE, 2009, The Reflective Teacher (a manual for in-service training) NCERT, 2007, the operational guidelines for BRC-CRCs (GOI, 2010) and other documents that had been providing ideas regarding the directions for teacher professional development work. Also, the guideline mentioned that IASEs were mandated to prepare elementary and secondary teacher educators through pre-service and in-service programs. They should also conduct research and provide academic guidance to DIETs and resource support to CTEs. IASEs were additionally required to set up units/centres that would undertake in-depth work in specific areas including research and material development in areas of Curriculum Studies, Pedagogic Studies, Assessment and Evaluation, apart from the responsibility of educating teachers and teacher educators.

SCERT Mizoram, an academic wing of the Department of School Education deals with the academic aspects of different levels of education like Primary Education, Secondary Education, Teacher Education, In-service orientation programmes and continuing education etc. SCERT plays a vital role in order to bring about quality in the field of Teacher Education and thus furthering the cause of school education. The investigator felt it worthwhile to conduct "Centrally Sponsored Scheme of Teacher Education and Total Quality Management of Teacher Education Institutions in Mizoram: An Analytical Study with the following objectives in mind –

1. To trace the origin and development of Centrally Sponsored Scheme of Teacher Education in Mizoram.
2. To examine the changes that have taken place in teacher education in Mizoram since the implementation of Centrally Sponsored Scheme of Teacher Education.
3. To examine the problems and challenges faced by the stakeholders in the implementation of Centrally Sponsored Scheme of Teacher Education.
4. To examine the perception of teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram.

5. To compare the perception of male and female teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram.
6. To examine the perception of teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram.
7. To compare the perception of male and female teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram.
8. To compare the perception of various Teacher Education Institutions about Total Quality Management of Teacher Education Institutions in Mizoram.
9. To compare the perception of teacher trainees and teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram.
10. To suggest measures for strengthening Teacher Education Institutions in Mizoram.

The investigator used Historical as well as Descriptive Research Method and the general framework of the study was collecting and analyzing data related to capacity and performance of Teacher Education Institutions in Mizoram. In order to carry out the study, the researcher develops information schedule in which Opinionnaire and Checklist were developed and administered to the concerned officers responsible for implementing the Centrally Sponsored Scheme of Teacher Education in Mizoram. These were: i) Director, SCERT Mizoram, ii) Principal, IASE Aizawl, iii) Principals of 8 DIETs of Mizoram. Mukhopadhyay's Institutional Profile Questionnaire (MIPQ) was administered to teacher educators and teacher trainees of the Teacher Education Institutions. Document Analysis was done in which various documents were interpreted by the investigator to give voice and meaning around the topic of study. The following documents were analysed –

1) Perspective Plan of SCERT Mizoram (2012-2017)
2) Perspective Plan of 8 DIETs (2012-2017)
3) Perspective Plan of IASE (2012-2017)
4) Annual Work Plan (AWP) & Budget of SCERT Mizoram (2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18)
5) Annual Work Plan (AWP) & Budget of 8 DIETs of Mizoram (2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18)

6) Annual Work Plan (AWP) & Budget of IASE Mizoram (2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18)
7) TEAB Meeting Minutes (2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18)
8) Sanction letter of MHRD (2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18)

The collected data through Information Schedule was scored, tabulated and analyzed by using simple statistical methods like percentage. All the responses through information schedules as well as document analysis were done in a descriptive way.

5.1 Summary of Major Findings:

The major findings of the present study were categorically discussed in the following paragraph.

5.1.1 Origin and development of Centrally Sponsored Scheme of Teacher Education in Mizoram.

The researcher through the use of available literature, office records and annual reports of respective institutions has prepared the origin and development of CSSTE. Teacher training in Mizoram was started as early as 1901 by the British missionaries. After India gained independence the state government continue to run the teacher training institutes established in Aizawl (1953) and Lunglei (1974) which later became DIETs, the TTI at Aizawl was upgraded to DIET in 1988 and the TTI at Lunglei was upgraded to DIET in 1993. The state government also set up Mizoram Institute of Education in 1975 which later became College of Teacher Education (CTE) and was later upgraded to Institute of Advance Study in Education (IASE) in 2005. SCERT was established as an Academic Wing under the Directorate of School Education in 1980 and later was made a separate Directorate in 2008. After Centrally Sponsored Scheme of Teacher Education was introduced in the state of Mizoram, existing TEIs were upgraded and supported and as a result, there were 8 DIETs, 1 IASE and 1 SCERT in the state of Mizoram which were the Teacher Education Institutions funded under the scheme. All the eight DIETs offer Diploma in Elementary Education (D.El.Ed) courses and additionally DIET Aizawl and DIET Lunglei also offers

Bachelor of Education (B.Ed) courses. IASE Aizawl offers B.Ed in as well as Master of Education (M.Ed) courses.

5.1.2 Changes that have taken place in teacher education in Mizoram since the implementation of Centrally Sponsored Scheme of Teacher Education.

The changes that had taken place in teacher education in Mizoram since the implementation of Centrally Sponsored Scheme of Teacher Education was analysed by the researcher through checklist. Since Teacher Education was started way before CSSTE in Mizoram, the changes in Teacher Education in Mizoram before and after implementation of CSSTE were observed on the basis of various dimension.

Table 5.1

Changes in Teacher Education in Mizoram before and after CSSTE

Sl. No	Dimension	Before CSSTE (before 1987)	After CSSTE (1988 - 2017)
1	No. of Teacher Education Institutions	4	10
2	Management	State Government	State Government and Central Government
3	Minimum Qualification of Teacher Educators	Graduate	Post Graduate
4	Infrastructure	4 institute building with minimal equipment and facility	10 institute building equipped with better facility and technology
5	Pay structure	As per state government	As per state government
6	Recruitment of faculty	Direct and Promotion	Direct and Promotion
7	Courses offered	Diploma & Graduate level	Diploma, Graduate and Post Graduate Level

Source: Survey

As could be seen from the above Table 5.1 there were only four (4) Teacher Education Institutions in Mizoram prior to CSSTE. These four TEIs were strengthened and upgraded under CSSTE and continue to progress eventually. The first and the oldest professional training institute was started at Aizawl in 1953 as a Junior Basic Training Centre which was meant for training of untrained Primary school teachers and was later amalgamated with Normal Training School which was meant to train untrained Middle school teachers and was renamed as Under-graduate Teacher Training Institute (UGTTI) in 1974. At the same year UGTTI was started in Lunglei. These UGTTIs were state run institutes meant for training of undergraduate teachers who were mostly Primary School and Middle School teachers. These UGTTIs were upgraded to Teacher Training Institute (TTI) in 1980 to accommodate training for Graduate Teachers. After CSSTE was implemented by the central government, TTI at Aizawl was upgraded to DIET in 1988 and TTI at Lunglei was upgraded to DIET in 1993. The teacher education programme/course offered by these two institutes were diploma level. However, in 2017 these two DIETs were granted recognition to run B.Ed course/programme by the National Council for Teacher Education (NCTE).

In 1975, Mizoram Institute of Education (MIE) was started at Aizawl for training of Secondary school teachers. It later became the College of Teacher Education (CTE) in 1997 after the implementation of CSSTE in Mizoram. It was further upgraded to IASE in 2005 and began functioning as an IASE from March 2012. IASE Aizawl offers both B.Ed and M.Ed courses at present, but prior to CSSTE while it was MIE, it offers graduate level teacher education programme i.e B.Ed or formerly B.T (Bachelor of Teaching).

SCERT Mizoram was established in 1980 as a state counterpart of the NCERT at the central. Apart from short course teacher training programmes it did not offer teacher education programme/course prior to CSSTE. Even after the implementation of CSSTE in Mizoram, there was no degree or diploma course run by SCERT Mizoram under the scheme but various programmes and activities were undertaken under CSSTE. However, SCERT Mizoram run B.Ed (Special Education) programme which was recognized by Rehabilitation Council of India and was not funded under CSSTE.

In addition to the four TEIs mentioned above, six (6) District Resource Centres or Telescopic DIETs were established in 2005 under CSSTE and were later upgraded

to full-fledged DIET in 2013. Unlike the two aforementioned DIETs, these DIETs were not state borne institute upgraded under CSSTE but institutions purely established under CSSTE and upgraded under the same scheme to DIETs. While they function as DRCs, these institutes did not run teacher education courses but various programmes and activities including short course teacher training were carried out under the scheme which was funded from the central government. After they were upgraded to DIETs, these 6 DIETs were granted recognition from NCTE to run Diploma in Elementary Education (D.El.Ed) in 2016.

Thus, CSSTE has resulted in upgradation of three (3) existing institutes (DIET Aizawl, DIET Lunglei and IASE Aizawl) and establishment and upgradation of 6 new institutes (6 DIETs viz. DIET Saiha, DIET Champhai, DIET Kolasib, DIET Serchhip, DIET Lawngtlai and DIET Mamit) and strengthening of an existing institute at SCERT Mizoram.

Most of the physical changes as observed by the investigator happens due to the sanction received under CSSTE. SCERT Mizoram received funds for Physical Infrastructure development as a Non-Recurring Expenditure under CSSTE which was approved in 2012-13. A new building called SCERT Multipurpose building was constructed for an amount of Rs175.68 lakhs as approved by the TEAB. Equipment to the tune of Rs 30.00 lakhs (Rupees thirty lakhs) was purchased through the State Purchase Advisory Board. Special Cells were also established in Science and Mathematics, Social Sciences and ICT.

Two existing DIETs at Aizawl and Lunglei received funds for construction of Hostel buildings as approved in 2012 by the TEAB for an amount of Rs. 198.49 lakhs (DIET Aizawl) and Rs.216.31 lakhs (DIET Lunglei). At the same time, the then six DRCs were approved for construction of their main institute buildings with an amount of Rs. 279.25 lakhs for DIET Saiha, Rs. 241.46 lakhs for DIET Champhai, Rs. 223.46 lakhs for DIET Kolasib, Rs. 233.53 lakhs for DIET Serchhip, Rs. 274.38 lakhs for DIET Lawngtlai and Rs. 233.70 lakhs for DIET Mamit. For similar type of construction works/type of building i.e., Hostel building in the case of DIET Aizawl and Lunglei and Institute building in the case of the 6 new DIETs, the difference in the amount of approval was due to difference in the cost index for different districts as per the Schedule of Rates of the state Public Works Department during that time.

Assistance for purchase of equipment was approved by the same TEAB in 2012 to the tune of Rs 20 lakhs each for DIET Aizawl and Lunglei and Rs. 10 lakhs each for the then six DRCs.

A non-recurring grant for IASE Aizawl was also approved in 2012 by the TEAB to an amount of Rs 25 lakhs for Vertical extension of the existing institute building. No Equipment grant was approved for IASE Aizawl.

The above mentioned non-recurring grants for SCERT, 8 DIETs and IASE Aizawl was sanctioned in two installments. The 1st installment was sanctioned in 26.02.2013 and the 2nd installment was sanctioned in 01.06.2015 after a gap of two years. No other non-recurring grant was received during the 12th Five-year plan period i.e from 2012 to 2017.

However, on a closer scrutiny of the then TEAB minutes, it was found that an amount of Rs. 3122.29 lakhs for Civil Works of 8 DIETs and Rs 20 lakhs for Equipment of IASE Aizawl was approved in 2013. However, sanction was not given and there was no further mention of the approved non-recurring expenditure for the year 2013-14.

SCERT Mizoram was quite busy in performing various programmes and activities. During the period of study, SCERT Mizoram conducted an average of 102 different programmes and activities every year through its various departments and wings/cells. Teacher Education and Extension Services alone conducted 106 different programmes and activities which was mainly the utilization of Recurring Expenditure components of the CSSTE. This seems to be the resultant of the revision of the CSSTE which among other things had increased the availability of funds.

Apart from salary component DIETs and IASE received funds for Programmes and Activities every year from 2012 to 2017. These were the main regular features of funds received under Recurring component. Occasionally, funds for Faculty development, technology support, computer consumables and contingency were approved and sanctioned. Thus, maintenance of these institutes and the works that they did was majorly funded under CSSTE.

One of the major changes which takes place was in the planning process. Institutional planning was extensively used for formulating Annual Work Plan as well as Perspective Plan which was a positive change as not only SCERT but other Teacher

Education Institutions like DIETs and IASE came up with a plan of their own to be consolidated in the state Teacher Education plan.

On the other hand, there were other things which remains 'status quo' against desired. The Restructuring and Reorganisation of Teacher Education as desired by the Guidelines in 2012 did not happen during this period. At the same time Teacher Education cadre was not created. Also, there was no new post created in SCERT, Mizoram under CSSTE during 2012-2017.

In the case of IASE Aizawl, it took seven long years to start functioning as an IASE even after its upgradation from CTE in 2005 to 2012. Creation of posts and filling up of posts started late in 2016 for IASE Aizawl.

There were 99 posts created in DIETs during 2012 – 2017. However, casual vacancy was not filled for a prolonged period of time. At the onset of upgrading TTI Lunglei to DIET in 1993, only 4 Senior Lecturer posts was created as against the DIET Guidelines which mention that there should be 7 Senior Lecturer posts in a DIET. Again, when 6 DRCs were upgraded to DIETs in 2013 there was no Senior Lecturer posts created and even at the end of the CSSTE these 6 DIETs were devoid of Senior Lecturer posts. Only DIET Aizawl had the required number of Senior Lecturer posts. Thus, the changes that had taken place in Teacher Education in Mizoram in implementation of CSSTE was mostly physical infrastructure development and process of planning. However, structural changes and reorganization failed to materialize during this period.

5.1.3 Problems and challenges faced by the stakeholders in the implementation of Centrally Sponsored Scheme of Teacher Education.

An opinionnaire was prepared and administered to heads of institutions to gather information regarding the problems and challenges faced by TEIs in Mizoram. Information was also collected from relevant documents pertaining to CSSTE and document analysis was done. The opinionnaire coupled with an analysis of various documents were used to examine the problems and challenges faced by the stakeholders in the implementation of Centrally Sponsored Scheme of Teacher Education which was classified into various dimensions as follows:

Table 5.2

Problems and challenges in CSSTE

S.N	Dimension	Problems and challenges	Observations
1	Management	i. Organisational structure ii. Funding iii. Fund flow	i. The organisational structure was not as mandated by the teacher education guidelines. ii. Adequate funds were not received. iii. Fund flow was irregular and funds were not received in time.
2.	Teacher education programme	i. Faculty professional development ii. Programme approval iii. Research committee	i. Insufficient provision for faculty professional development ii. Most programmes not approved by Programme Advisory Committee iii. Research committee not properly formed
3	Qualification	i. Common cadre of Teacher Educators ii. Creation of posts iii. Restructuring and reorganization	i. Teacher Education cadre not formed as per guidelines. ii. Posts not created and filled as per guidelines. iii. Restructuring and reorganization not done according to guidelines
4	Infrastructure	i. Database ii. Lab area	i. Institutes did not prepare database of teachers and schools ii. Institutes did not have identified Lab area

Source: Survey

From table 5.2, it was obvious that the Centrally Sponsored Scheme of Teacher Education, Guidelines for Implementation, June 2012 was not fully followed in the implementation of CSSTE in Mizoram especially in terms of organizational structure, restructuring and reorganization and creation of common cadre for teacher educators. The failure to create a common cadre of teacher educators must be a resultant effect of failure to restructure and reorganize teacher education in Mizoram.

The teacher education institutions seem to have fallen behind in creating database and Lab area. Various committees like Programme Advisory Committee and Research Committee were not formed or functioning as desired by the guidelines.

Funding and fund flow seems to be a major problem faced by the stakeholders. It was obvious that funds were often released late by looking at the date of sanction orders issued from time to time. The employees of teacher education institutions would probably face late payment of salary and many of their programmes and activities would not have been carried out in time due to late receipt of funds.

There also seems to be an inadequacy in human resources. Vacant posts remained unfilled for a prolonged period of time creating problems and difficulties in implementing various programmes and activities. There was huge vacancy in the DIETs and many posts were not even created as per the guidelines. Moreover, professional development seems to be a major challenge even though the guidelines advocate professional development of teacher educators.

One of the most profound issues regarding teacher education in Mizoram during this period may be that, despite the MHRD's best efforts, the state of Mizoram had been unsuccessful to implement the restructuring and reorganisation of teacher education as per the teacher education guidelines intents and purposes.

The problems and challenges examined in this study has similarity with the study by Jena (2024) in Teacher Education in India: Challenges and Suggestions who found that the major challenges in teacher education include lack of human resources, lack of infrastructure, lack of funds and qualification of teacher educators.

5.1.4 Perception of teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram.

Mukhopadhyay's Institutional Profile Questionnaire (MIPQ) was administered to study Total Quality Management of Teacher Education Institutions in Mizoram. The test items pertain to 11 sub areas or domains which were –

1. Principal as Leader
2. Teacher Quality
3. Linkages and Interface
4. Students
5. Co-curricular Activities
6. Teaching
7. Office Management
8. Relationships
9. Material Resource
10. Examination
11. Job Satisfaction

The perception of teacher educators about Total Quality Management of each institution were analysed against the average perception scores of the teacher educators in the 11 areas of quality indicators. The test was administered to teacher eductors SCERT Mizoram was not included in the test as teacher education course/programme was not run by SCERT Mizoram under CSSTE.

Considering all the 10 Teacher Education Institutions, the cut-off point was 8.53. The overall score of teacher educators across teacher education institutions indicates that the areas falling under the cut-off point were the weak areas and those above the cut-off point were the strong areas. The weak areas of Teacher education institution were linkage and interface, office management, material resource and job satisfaction. The areas above the cut-off point were identified as strong areas which were principal as leader, teacher quality, student quality, co-curricular activities, teaching, relationships and examination. Students could be considered neither strong nor weak. Principal as a leader as well as relationships were the strongest area of the teacher education institutions with average score of 10.48 while the weakest area of

the teacher education institutions was linkages and interface with an average score of 3.50.

The overall score of teacher educators of various Teacher Education Institutions was positive for all the sub-areas as well as for each institution albeit a chance of being a negative average score which indicates that teacher educators of Teacher Education institutions in Mizoram had a positive perception about Total Quality Management of Teacher Education Institutions in Mizoram. The first hypothesis which states that teacher educators of Teacher Education Institutions in Mizoram had a positive perception about Total Quality Management of Teacher Education Institutions in Mizoram was proved and accepted.

This finding was in conformity with the study of Sahito & Vaisanen (2017) wherein it was stated that "the perception of teacher educators about quality education was found quite clear and majority of them were found highly interested to work for it". Dagnew & Asrat (2016) also found that teachers prioritize input indicators of quality education, such as resources and infrastructure while focusing more on process indicators, like student-centered approaches, in their practices.

5.1.5 Perception of male and female teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram.

To compare the perception of teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram, the perception of teacher educators was studied with reference to their gender. For this, the mean and standard deviation of the scores of both male and female groups were calculated. There were 38 male and 65 female teacher educators subjected to the test. Then, t-test was carried out to find out the significant difference in the means between the male and female teacher educators.

The t-test examines if the means of the two groups were equal. And it was found that there was no significant difference between the means. Thus, the null hypothesis which states that 'there is no significant difference between the perception of male and female teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram' was proven and accepted.

This finding did not conform to the study of Bhat (2016) who found that there was a significant difference found between male and female teachers in the perception of TQM and female teachers were having higher mean than male teachers. Pour & Yeshodhara (2009) also found that there was significant difference between male and female teachers in the perception of total quality management. Female teachers had higher mean score than male teachers.

The findings of the previous researchers contradicted with the present researcher's findings. This could be because in Mizoram women enjoy a special kind of freedom and the workplace is also with a much different atmosphere than the place where the previous study on Total Quality Management was done. In fact, the sex ratio in Mizoram was 976 females per 1,000 males, which was higher than the national ratio of 940 as per 2011 census. Also, there were more female teacher educators than male in Mizoram. This may be a healthy sign for the status of women in the state. But in order to establish the truth of this, another research may be necessary.

5.1.6 Perception of teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram.

The perception of teacher trainees about Total Quality Management was analysed against the average perception scores of the teacher trainees in the following 11 areas of quality indicators.

Considering all the 10 Teacher Education Institutions, the cut-off point was 6.85. The overall score of teacher trainees across teacher education institutions indicates that the areas falling under the cut-off point were the weak areas and those above the cut-off point were the strong areas. The weak areas of teacher education institution as per teacher trainees were linkage and interface, office management, material resource and examination. The areas above the cut-off point were identified as strong areas which were principal as leader, teacher quality, student quality, co-curricular activities, teaching, relationships and job satisfaction. Principal as a leader was the strongest area of the teacher education institutions with average score of 9.60 while the weakest area of the teacher education institutions was linkages and interface with an average score of 2.22.

The overall score of teacher trainees of various Teacher Education Institutions was positive for the sub-areas as well as for each institution albeit a chance of being a negative average score which indicates that Teacher trainees of Teacher Education institutions in Mizoram had a positive perception about Total Quality Management of Teacher Education Institutions in Mizoram and thus the third hypothesis which states that teacher trainees of Teacher Education institutions in Mizoram had a positive perception about Total Quality Management of Teacher Education Institutions in Mizoram was proved and accepted.

Similarities were found with the study of Al-Tarawneh and Mubaslat (2011), who reported moderate level of TQM implementation in Jordan with regard to students' opinion and their evaluation of Jordanian universities students to the provided services quality level was positive although the general feeling of students was not satisfied.

5.1.7 Perception of male and female teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram.

The perception of teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram was compared with reference to their gender. For this, the mean and standard deviation of the scores of both male and female groups were calculated. There were 208 male and 331 female teacher trainees subjected to the test. Then, t-test was carried out to find out the significant difference in the means between the male and female teacher trainees.

The t-test examined if the means of the two groups were equal. It was found that male teacher trainees had a lower mean than those of female teacher trainees, which indicated that female teacher trainees had a more positive perception about Total Quality Management of Teacher Education Institutions in Mizoram. Hence, the null hypothesis, which stated that 'there was no significant difference between the perception of male and female teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram,' was refuted and rejected.

This finding had similarity as well as some contradiction with the study by Pourrajab et al. (2015) who found that there was a significant difference in the level of

TQM between students' gender. However, they found that the TQM perception of male students in their schools was significantly higher than the female students.

Similar to the case of teacher educators as mentioned above in 5.1.5, this could be because in Mizoram the female gender enjoyed a special kind of freedom and the institution being co-ed with more female teacher trainees than male. This points to a healthy sign of gender parity in the state. However, the veracity may be established through further studies.

5.1.8 Perception of various Teacher Education Institutions about Total Quality Management of Teacher Education Institutions in Mizoram.

The perception of various Teacher Education Institutions about Total Quality Management of Teacher Education Institutions in Mizoram was compared using data collected from teacher educators. One-way ANOVA was carried out using SPSS. Since the analysis showed a significant difference, post hoc analysis was done using Tukey HSD to further identify the differences across various teacher education institutions.

It was found that IASE Aizawl has a significantly higher mean than:

- DIET Aizawl (mean difference = 7.10250, p-value = 0.002)
- DIET Serchhip (mean difference = 6.44444, p-value = 0.046)
- DIET Mamit (mean difference = 6.95375, p-value = 0.030)

There were no significant mean differences between IASE Aizawl and the other institutions (DIET Lunglei, DIET Saiha, DIET Champhai, DIET Kolasib, and DIET Lawngtlai). All other pairwise comparisons had adjusted P values greater than 0.05, indicating no significant differences between those pairs of institutions. These findings suggest that specific IASE, Aizawl had significantly different Total Quality Management values compared to others in the study.

5.1.9 Perception of Teacher Trainees and Teacher Educators about Total Quality Management of Teacher Education Institutions in Mizoram.

The perception of teacher trainees and teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram was compared using T-test. For this, the mean and standard deviation of the scores of teacher trainees and

teacher educators were calculated. Then, t-test was carried out to find out the significant difference in the means between teacher trainees and teacher educators.

The t-test examines if the means of the two groups were equal. It was found that teacher trainees had lower mean than teacher educators which indicate that teacher educators had more positive perception about Total Quality Management of Teacher Education Institutions in Mizoram. Hence, the null hypothesis which states that 'there is no significant difference between the perception of teacher trainees and teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram' was negated and rejected.

5.1.10 Measures for strengthening Teacher Education Institutions in Mizoram.

Considering the problems and challenges faced by the stakeholders and the changes that had taken place in teacher education in Mizoram since its initiation in 1901, here were some measures to strengthen Teacher Education Institutions in Mizoram:

5.1.10.1 Suggestions based on objectives of the study

Some suggestions were made based on the objective stated for the research as follows:

1. Academically, continuous professional development should be prioritized. Faculty members of the Teacher Education Institutions in Mizoram should be professionally empowered through planned capacity building strategy. For immediate action, arrangement may be made so that the faculty of SCERT Mizoram and DIETs may gain higher professional degree as many of the teacher educators possess professional degree up to graduate level only. *(Objective 2)*
2. Restructuring and reorganisation of teacher education needs to be done so as to meet the growing demand of school education vis-à-vis teacher education in the light of the National Education Policy 2020. This would also pave a way for creating a common cadre of teacher educators. *(Objective 2)*
3. A strong process for selection of professionals to work in the right place must be ensured. Rationalisation of teacher educators/faculty must be done. *(Objective 3)*
4. Shortage of manpower needs to be addressed and new posts were needed to be created modelling the structure of the Teacher Education Guidelines. *(Objective 3)*

5. Financially, greater resource support needs be provided by the Central Government to the State Governments in enabling them to revitalize the teacher education by making financial norms more flexible to accommodate the challenges in these hilly and difficult terrain areas. The Centre and the State needs to ensure that funds were released on time so that salaries could be paid and activities undertaken as per plan. *(Objective 3)*
6. Augmentation of infrastructure and instructional facilities were essential. Physical infrastructure, including training halls, dormitories, rooms, labs, etc., must be upgraded to meet the unique needs of the state. *(Objective 3)*
7. Partnerships with local schools and communities need to be fostered to provide student teachers with real-world experience and networking opportunities, enabling them to engage in meaningful outreach and extension activities. *(Objective 4 & 6)*
8. Establish mentorship programs, pairing experienced teachers with student teachers, to provide guidance and support. *(Objective 4 & 6)*
9. Develop collaborations with national and international institutions, organizations, and experts to enrich teacher education. Collaborate with other teacher education institutions, universities, and organizations to share best practices and resources. *(Objective 4 & 6)*
10. Provide comprehensive support services, including counselling, guidance, and career advice, to student teachers. Also, regularly assess and provide constructive feedback to student teachers to improve their teaching skills. *(Objective 4 & 6)*
11. Establish a strong alumni network, fostering connections between graduates, institutions, and the education community. *(Objective 4 & 6)*
12. Additionally, there was a requirement to guarantee administrative and academic convergence both inside the institution and throughout the system's many institutions. It was necessary to prepare for scheduled faculty meetings that center on academic matters. Apart from the social media platforms such as Facebook, WhatsApp, and the like that were being used, a platform or forum for exchanging ideas and best practices needs to be established. *(Objective 4 & 6)*

5.1.10.2 General suggestions

1. Teacher education curricula must be reviewed and updated to align with changing educational needs and standards especially in the light of NEP 2020 emphasizing practical skills and community engagement
2. Focus on local context by incorporating Mizoram's unique cultural, linguistic, and geographical context into teacher education programs.
3. Leverage technology to enhance teaching and learning, including online resources, digital tools, and multimedia content. Incorporate technology into teacher education programs to equip teachers with digital literacy and online teaching skills.
4. Encourage research and innovation in teacher education, focusing on local contexts and educational challenges to inform policy and practice.
5. Another crucial element that must be taken into account was building teacher educators' support networks and strengthening their research capacity. To take initiative, the Research Committee must be strengthened. It may be necessary to organize a committee of teacher educators to reformulate and assess the in-service teacher development programs. Additionally, a flexible and useful Training Management System must be employed.
6. It was also necessary to strengthen library for the documentation and preservation of instructional books and resources created for different school levels.
7. Practical training and hands-on/field experiences may be intensified for student teachers, including internships and mentorship programs ensuring they were well-prepared for real-world teaching challenges.
8. Regularly monitor and evaluate the effectiveness of teacher education programs, making data-driven decisions to drive improvements.

These measures could help strengthen Teacher Education Institutions in Mizoram, ultimately enhancing the quality of teacher preparation and education in the state.

5.1.11 Reflection of TQM of TEIs through CSSTE.

The Centrally Sponsored Scheme of Teacher Education (CSSTE) aims to improve the quality of teacher education in India. TQM is a management approach that emphasizes continuous improvement, employee involvement, and customer satisfaction.

In the context of TEIs, TQM principles can be applied to:

1. Improving academic programs: TEIs can use TQM to design and deliver high-quality academic programs that meet the needs of students and stakeholders.
2. Enhancing teaching and learning: TQM can help TEIs to improve teaching and learning processes, including curriculum design, pedagogy, and assessment.
3. Developing faculty and staff: TEIs can use TQM to provide professional development opportunities for faculty and staff, enhancing their skills and competencies.
4. Building partnerships and collaborations: TQM can facilitate partnerships and collaborations between TEIs, schools, and communities, promoting mutual benefit and improvement.

The CSSTE has initiated several programs and activities to promote TQM in TEIs, including:

1. Quality improvement programs: CSSTE provides financial and technical support to TEIs to implement quality improvement programs, such as accreditation, ISO certification, and quality audits.
2. Faculty development programs: CSSTE offers faculty development programs, including training, workshops, and conferences, to enhance the skills and competencies of faculty members.
3. Curriculum reform and development: CSSTE supports curriculum reform and development initiatives in TEIs, promoting innovative and effective teaching and learning practices.
4. Partnerships and collaborations: CSSTE encourages TEIs to build partnerships and collaborations with schools, communities, and other stakeholders, promoting mutual benefit and improvement.

5.2 Discussions

Centrally Sponsored Scheme of Teacher Education was a resultant of the National Policy on Education, 1986 and was started in 1987. The NPE envisaged teacher education as a continuous process and the scheme has been continued with modifications in all the plan periods after it was initiated. CSSTE has been instrumental in bringing about wholesome change in the teacher education scenario.

5.2.1 Teacher Education in Mizoram before CSSTE

SCERT Mizoram, IASE Aizawl (formerly MIE/CTE) and DIET Aizawl and DIET Lunglei (formerly TTI etc.) were established before 1987. These four institutions were the only teacher education institutions running before implementation of CSSTE in Mizoram. They were wholly run and managed by the state government. Recruitment of staff and salary was as per the state government only.

In-service teacher education was provided by all the institutions but Pre-Service Teacher Education was not started in any of the institutions. Only IASE Aizawl and the two DIETs at Aizawl and Lunglei offer Teacher Education Programme/Courses, IASE offer B.Ed/BT courses while DIET Aizawl and Lunglei offer Diploma in Teacher Education courses. SCERT Mizoram did not offer such courses/programmes. Since they were run by the state government their intake capacity was also as per the state government.

Regarding qualification and cadre management, IASE requires general qualification upto Post Graduate level whereas for the two DIETs and SCERT the general qualification required was only upto graduation level. Professional qualification was upto graduate level for all the four institutions. Only IASE Aizawl follows area/subject wise staff in pattern. Direct recruitment was done in all the four institutions, while IASE did not provide an avenue for promotion from school or another institute SCERT Mizoram and DIET Aizawl and Lunglei recruited their staff through promotion. Teacher education cadre was not formed before 1987.

All the institutions had bare minimum infrastructure facilities during that time. There were classrooms, library, office room as well as games and sports equipment etc. available in all the institutions.

5.2.2 Teacher Education in Mizoram after CSSTE

After CSSTE was implemented in Mizoram, six more DIETs were established. Funds were thus received from the State as well as Central Government. However, recruitment was done by the State Government and salary structure was also as per the State Government in all the institutions.

All eight DIETs offer Diploma in teacher education courses/programmes and B.Ed courses was offered in IASE Aizawl as well as in DIET Aizawl and Lunglei. SCERT Mizoram did not offer any diploma or graduate teacher education programme. Apart from SCERT Mizoram all the other teacher education institutions offer pre service teacher education programme which was recognized/approved by the Central Government and the intake capacity was also as per the Central Government. In service teacher education was imparted by all the teacher education institutions including SCERT.

Regarding qualification and cadre management, IASE and DIETs require general qualification upto Post Graduate level whereas for SCERT the general qualification required was only upto graduation level. Professional qualification was upto graduate level for SCERT and for IASE and DIETs it was upto Post Graduate level. Only IASE Aizawl follow area/subject wise staff in pattern. Direct recruitment was done in all the institutions. While IASE did not provide avenue for promotion from school or another institute SCERT Mizoram also recruited their staff through promotion. Teacher education cadre was not formed even after 1987 in Mizoram.

Infrastructure development could be seen after implementation of SCERT. Establishment of new institutions and upgradation of existing ones had led to positive changes especially in terms of physical infrastructure. Apart from generally available classrooms and offices, new institution building lead to availability of different laboratory rooms and resource centres as well as toilet facilities. Augmentation of office equipment and ICT facilities could also be seen after 1987.

5.2.3 Total Quality Management of Teacher Education Institutions in Mizoram.

Total Quality Management of Teacher Education Institution in Mizoram was studied using Mukhopadhyay's Institutional Profile Questionnaire. This study reveals that teacher educators and teacher trainees had a positive perception about Total Quality Management of teacher education institutes in Mizoram. Although, there was no significant difference between male and female teacher educators in their perception, female teacher trainees show higher positive perception than male teacher trainees.

The strong areas and the weak areas of the teacher education institutions were evident from the analysis of the perception scores of teacher educators and teacher trainees which remarkably shows almost similar result for both teacher educators and teacher trainees. The strongest area being Principal as leader and based on the analysis it could be inferred that the principals of the Teacher Education Institutes show lots of initiatives and were dynamic. They enjoy the confidence of the faculty and shows lot of concern for the staff and took interest in solving the problems of the staff. The principals did not avoid taking important decisions and manage the staff meetings well. Principals had development plans and had done lot of good things during their tenure. Principals had taken interest in co-curricular activities which was also evident from the fact that co-curricular activities had been one of the strong areas of the teacher education institutions.

Linkages and interface were found to be the weakest area in all the institutions which indicates that the institutions were perceived as an isolated institution and it implies that there were less contact with outside agencies and other institutions. Also, the institutions seldomly invite outside people to speak to the students and the faculty which again suggest that teachers and experts from other places hardly visit their institutions. Again, parents and community hardly frequent their institutions and most of the teachers and principals were not members of local clubs. Regular links with the old students had been maintained poorly and ex-students did not often visit the institutions.

It was found that there was a statistically significant difference among the means of the institutions. The post hoc analysis shows that IASE Aizawl had a significantly higher mean than DIET Aizawl, DIET Serchhip and DIET Mamit. There

were no significant mean differences between IASE Aizawl and the other institutions (DIET Lunglei, DIET Saiha, DIET Champhai, DIET Kolasib, and DIET Lawngtlai). There were no significant differences among other institutions. IASE, Aizawl had significantly different Total Quality Management values compared to others in the study.

5.3 Conclusions

Mizoram could be placed among the younger and smaller states of India. With its emergence into a Union Territory in 1972, the state government increased attention to the improvement of the quality aspect of education. In order to meet this challenge, one strategy adopted was the establishment of the State Council of Educational Research and Training (SCERT) as a replica of the National Council of Educational Research (NCERT). SCERT Mizoram came to materialize in 1980 as an academic wing of the School Education Department. The main function that the SCERT had to perform was to act as an agent of change in school education and non-formal education, as well as, in teacher education.

The CSSTE has made significant efforts to promote TQM in TEIs. However, there are still challenges and areas for improvement:

1. Limited resources: TEIs often face limited resources, including funding, infrastructure, and personnel, which can hinder the effective implementation of TQM.
2. Lack of awareness and commitment: Some TEIs may lack awareness and commitment to TQM principles and practices, which can limit their effectiveness.
3. Insufficient support and guidance: TEIs may require additional support and guidance to implement TQM effectively, particularly in areas such as curriculum reform and faculty development.

To address these challenges, the government and other stakeholders should provide increased funding and resources to support TQM initiatives in TEIs. There should be more awareness and commitment to TQM principles and practices among TEIs, faculty members, and other stakeholders. This would entail additional support and guidance to TEIs to implement TQM effectively, particularly in areas such as curriculum reform and faculty development.

The study was carried out so that more will be understood about the implementation of the teacher education scheme especially with respect to the changes in the Teacher Education Institutions. It also attempts to ascertain the quality of teacher education institutions in the state through the perception of the teacher educators as well as teacher trainees. The government at the centre and as well as the state had invested a huge amount of money and other resources so as to better the quality of education as a whole through the CSSTE for teacher education in particular.

Positive aspects of teacher education could be seen through the perception of the stakeholders as well as CSSTE and its implementation. Teacher education in Mizoram had gained grounds in bettering the quality of education on various fronts and the CSSTE had been instrumental in bringing about this positive change.

Studies of this kind may be seen as trifling and yet much warranted. Teacher education has become a new frontier in the field of education especially in Mizoram. Slowly but surely, it has gained more and more importance as the demand for quality teachers increased after realization of the RTE Act.

Based on the current study, it could be concluded that the CSSTE contributed positively to teacher education in particular and education in general. The relationships between teachers, teaching, and teacher education were intimately intertwined; in fact, they were nearly axiomatic. In order to guarantee that learning occurs as effectively as possible in the classroom, teacher education had become crucial and essential. It became imperative that policymakers supported and advanced teacher education, given the rapid expansion and development that occurred in many areas of life during the modern era.

By addressing these challenges and recommendations, the assistance and support for teacher education from the state or central government or both, be it CSSTE, Samagra Shiksha or other future schemes and interventions can further promote TQM in TEIs, leading to improved quality of teacher education and better outcomes for students and stakeholders.

5.4 Educational Implications of the study:

This study could have significant implications for teacher education policy, practice, and research, ultimately leading to improved teacher quality, learning outcomes, and education system performance. The findings of the study could have implications for policymakers as it could lead to improved policy formulation to enhance teacher education which was in fact the need of the hour as was evident from the study that policy decision needs to be made for implementation of teacher education scheme such as restructuring and reorganisation of teacher education, cadre formation and creation of posts etc.

The study also provides empirical evidence to support teacher education reforms and promotes accountability and transparency in teacher education governance thereby contributing to the sustainable development of teacher education and the education sector.

The strength and weakness uncovered through the study of Total Quality Management could be utilised for identifying effective strategies to improve teacher quality and learning outcomes and increased efficiency by streamlining processes and reducing waste in teacher education institutions. It could have an implication towards future research and development in teacher education and Total Quality Management. The majority of these implications were directly related to strategies that policymakers could use to highlight the importance of teacher education's future. Future developments and transitions will center on how successfully teacher education transforms the teaching and learning process. It was now essential to look into the future not in isolation but ensuring that the roles of the teacher and the learner, the teacher education institution, and the curriculum evolve and converge simultaneously.

5.5 Suggestions for further research

No research was ever sufficient and final. To study and find research-based solutions of the endless issues in education was always a challenge for academicians and policy makers. Some suggestions for further studies were stated as follows:

1. Impact study: The present study was regarding the implementation of Teacher Education scheme in a particular state only and did not reflect the impact it had for quality education. Assessing the effectiveness of the scheme in improving teacher education and student outcomes, the impact that CSSTE had in the school education, teacher education and also to those of policy makers would be a worthwhile study.
2. Comparative Study: Comparing the outcomes of teacher education institutions receiving central assistance with those that did not. A comparative study with other states would also be a meaningful study. To fully understand the extent to which CSSTE was implemented may be ascertained by studying the implementation in different states.
3. Sustainability and Scalability: Investigating the sustainability and scalability of the scheme's initiatives as well as conducting a financial analysis of the scheme's expenditure and outcomes will be beneficial for the stakeholders including the government.
4. Teacher Education Policy Reforms: Analyzing the scheme's influence on teacher education policy reforms and its impact on curriculum development and implementation in teacher education would be a worthwhile study for policy makers as well as academicians.
5. Impact of TQM on Teacher Quality: Examining the relationship between TQM and teacher quality, including teacher performance and student outcomes, teacher job satisfaction, motivation, and engagement would be an interesting area of research.
6. Comparative Study of TQM in Teacher Education Institutions: Comparing the effectiveness of TQM implementation in different teacher education institutions within and outside the state would be a worthwhile study.

7. TQM and Teacher Education Curriculum: Investigating the impact of TQM on teacher education curriculum design and delivery as well as accreditation of teacher education programs could be a valuable area of study.
8. TQM and Teacher Education Stakeholder Satisfaction: Examining the impact of TQM on stakeholder satisfaction, including students, teachers, parents, and community members would be worth looking into.
9. TQM and Teacher Education Continuous Improvement: Investigating the effectiveness of TQM in driving continuous improvement in teacher education programs would have significant contribution.
10. TQM and Teacher Education Resources: Examining the impact of TQM on resource allocation and utilization in teacher education programs would provide a rich area for exploration.

Appendix I: Mukhopadhyay's Institutional Profile Questionnaire (MIPQ)

Section A: Personal Information

Name of Institute:

Age of respondent (as on 01.01.2023):

Gender (Please tick √): Male ( ); Female ( );

Section B: Mukhopadhyay's Institutional Profile Questionnaire (MIPQ)

This questionnaire provides you with an opportunity of reflection on various aspects of your institute; and thereby create a mirror image of your institution for you to see and examine. Number of statements are given below. When you examine each statement, you may feel that the statement, for your institute, is either:

(a) Very true (VT)
(b) Largely true (LT)
(c) Partly true (PT)
(d) Not sure (NS)
(e) False (F)

You only have to select your response against each statement and accordingly check (√) the response. Please note that you have to

(a) respond to all items
(b) respond freely and frankly, lest the profile may not be real
(c) consider each item independently and respond in the sequence presented to you, (and please do not go back and forth).

No.	Statements	VT	LT	PT	NS	F
1	The Principal shows a lot of initiative	VT	LT	PT	NS	F
2	Teachers do prepare before teaching	VT	LT	PT	NS	F
3	It is an isolated institution.	VT	LT	PT	NS	F
4	Students organize student activities skillfully	VT	LT	PT	NS	F
5	Co-curricular activities are considered necessary	VT	LT	PT	NS	F
6	Teachers review their teaching from time to time	VT	LT	PT	NS	F
7	Office of the institution is in lousy condition	VT	LT	PT	NS	F
8	There is good social relationship between Principal and the Staff	VT	LT	PT	NS	F
9	There is almost no teaching aid available in this institution	VT	LT	PT	NS	F

No.	Statements	VT	LT	PT	NS	F
10	Exams are merely a routine, not used for improving teaching learning	VT	LT	PT	NS	F
11	Most of the teachers do not enjoy their jobs here	VT	LT	PT	NS	F
12	Principal is very dynamic	VT	LT	PT	NS	F
13	Most of the teachers teach just because they have to earn their bread	VT	LT	PT	NS	F
14	The teachers and experts from other places visit this institution	VT	LT	PT	NS	F
15	Students are not much interested in their studies	VT	LT	PT	NS	F
16	Co-curricular activities do not have any significant place here	VT	LT	PT	NS	F
17	Teaching here is mostly dictating notes or reading from the text books	VT	LT	PT	NS	F
18	Officers do not indulge in underhand dealings	VT	LT	PT	NS	F
19	Each person and each group in this institution are only interested in their own benefit	VT	LT	PT	NS	F
20	Material resources are quite good here	VT	LT	PT	NS	F
21	Examinations use various types of test items like objective type, short answer types tests, etc.	VT	LT	PT	NS	F
22	Most of the teachers enjoy their job here	VT	LT	PT	NS	F
23	The Principal does not enjoy the confidence of the faculty	VT	LT	PT	NS	F
24	If there is an opportunity, most teachers will avoid exam, related works	VT	LT	PT	NS	F
25	It does not maintain any contact with outside agencies	VT	LT	PT	NS	F
26	Students in this institute are usually very good	VT	LT	PT	NS	F
27	Co-curricular activities involve all the teachers	VT	LT	PT	NS	F
28	Most teachers manage their classes well	VT	LT	PT	NS	F
29	It takes lot of time to get any help from the office	VT	LT	PT	NS	F
30	Most of the teachers have intimate friends within the faculty	VT	LT	PT	NS	F
31	Library, Laboratory or classes –every place is dirty and look like godowns	VT	LT	PT	NS	F
32	Exam papers are not in keeping with a well-developed assessment scheme	VT	LT	PT	NS	F
33	Staff always grumbles here	VT	LT	PT	NS	F
34	Principal shows lot of concern for the staff	VT	LT	PT	NS	F
35	Teachers are adequately trained	VT	LT	PT	NS	F

No.	Statements	VT	LT	PT	NS	F
36	The ex-students often visit the institution	VT	LT	PT	NS	F
37	Many students stay away from the classes	VT	LT	PT	NS	F
38	Only a few students take part in co-curricular activities	VT	LT	PT	NS	F
39	The students are not properly checked of their learning by many teachers	VT	LT	PT	NS	F
40	The office is very helpful	VT	LT	PT	NS	F
41	Teachers are divided into warring groups	VT	LT	PT	NS	F
42	There is significant effort to build up material resources	VT	LT	PT	NS	F
43	Students get opportunities to discuss their exam result with the teachers	VT	LT	PT	NS	F
44	Teachers are very happy here	VT	LT	PT	NS	F
45	Principal does not take any interest in solving the problems of the staff	VT	LT	PT	NS	F
46	Most of the teachers have strong command over their subject	VT	LT	PT	NS	F
47	Most of the teachers are not members of the local clubs	VT	LT	PT	NS	F
48	Students take studies seriously	VT	LT	PT	NS	F
49	Co-curricular activities are organized through-out the year, according to an annual plan	VT	LT	PT	NS	F
50	Teachers really care whether students understand their lessons or not	VT	LT	PT	NS	F
51	There is no common procedure in dealing with the employees-rule changes with the person	VT	LT	PT	NS	F
52	Teachers work as teams in this institution	VT	LT	PT	NS	F
53	Laboratories are not adequately equipped	VT	LT	PT	NS	F
54	Essay type tests are not commonly used in exams.	VT	LT	PT	NS	F
55	At the first opportunity, most teachers will leave this institution	VT	LT	PT	NS	F
56	Principal avoids taking important decisions	VT	LT	PT	NS	F
57	Even if provisions are made, most of the teachers would not like to undergo training	VT	LT	PT	NS	F
58	Parents frequently visit the institution and discuss with the teachers	VT	LT	PT	NS	F
59	Students are very weak in their expression	VT	LT	PT	NS	F
60	Cultural activities are organized to patronize only a few pet students	VT	LT	PT	NS	F
61	Curriculum is usually not completed in the class	VT	LT	PT	NS	F

No.	Statements	VT	LT	PT	NS	F
62	Office manages admission systematically	VT	LT	PT	NS	F
63	There are a few small cliques in the faculty and they are after each other	VT	LT	PT	NS	F
64	During the last several years there has been considerable addition to the material resources	VT	LT	PT	NS	F
65	There are no partialities in awarding marks in exams	VT	LT	PT	NS	F
66	Principal enjoys working in this institution	VT	LT	PT	NS	F
67	Principal has a development plan for every staff	VT	LT	PT	NS	F
68	Teachers often complain about lack of facilities, more workload, etc. in this institution	VT	LT	PT	NS	F
69	No, this institution does not have contact with other institutions	VT	LT	PT	NS	F
70	Students do not unnecessarily trouble the teacher	VT	LT	PT	NS	F
71	Besides sports and games, there are number of other major student activities	VT	LT	PT	NS	F
72	Most of the teachers use audio-visual aids while teaching	VT	LT	PT	NS	F
73	Office makes a mess of admission of students	VT	LT	PT	NS	F
74	The administrative staff maintain good relation with the teachers	VT	LT	PT	NS	F
75	The maps and charts are usually torn and eaten by moths	VT	LT	PT	NS	F
76	There is no scheme of continuous assessment	VT	LT	PT	NS	F
77	There is lot of complaint about management and facilities	VT	LT	PT	NS	F
78	Principal does not take any interest in co-curricular activities	VT	LT	PT	NS	F
79	Most of the teachers are well qualified	VT	LT	PT	NS	F
80	Institution maintains regular links with the old students	VT	LT	PT	NS	F
81	Students look for opportunities to harass the principal	VT	LT	PT	NS	F
82	There is lack of balance in the choice of co-curricular activities	VT	LT	PT	NS	F
83	Most of the teachers only give lectures, do not use any other method	VT	LT	PT	NS	F
84	Office records are properly maintained	VT	LT	PT	NS	F
85	The teachers do not visit each other at home	VT	LT	PT	NS	F
86	Library books are continuously updated	VT	LT	PT	NS	F
87	Lot of care is taken in paper setting and evaluating answer sheets	VT	LT	PT	NS	F

No.	Statements	VT	LT	PT	NS	F
88	Hardly anyone makes any complaint here.	VT	LT	PT	NS	F
89	Principal has done lot of good things during the last several years	VT	LT	PT	NS	F
90	Teachers criticize the principal at his/her back	VT	LT	PT	NS	F
91	Principal is not member of any local body	VT	LT	PT	NS	F
92	Students do not while away their time	VT	LT	PT	NS	F
93	There is an institutional plan for organizing co-curricular activities	VT	LT	PT	NS	F
94	Most of the teachers develop teaching plans	VT	LT	PT	NS	F
95	Instead of service, office corners all facilities for itself	VT	LT	PT	NS	F
96	Teachers relate very well with the students	VT	LT	PT	NS	F
97	Projectors are either not here or are out of order.	VT	LT	PT	NS	F
98	It takes considerable time to announce the exam. Results	VT	LT	PT	NS	F
99	The principal is very unhappy in the present job	VT	LT	PT	NS	F
100	Principal finds it difficult to manage the staff meetings	VT	LT	PT	NS	F
101	Most of the teachers take active interest in the activities of the institute	VT	LT	PT	NS	F
102	Institute gets outside people to speak to the students and the faculty	VT	LT	PT	NS	F
103	Students do not attend the classes regularly	VT	LT	PT	NS	F
104	Sports and cultural activities are usually very poorly organized	VT	LT	PT	NS	F
105	Most of the teachers do not teach well	VT	LT	PT	NS	F
106	Office records are easily traceable	VT	LT	PT	NS	F
107	Staff come and go; they do not socialize with each other	VT	LT	PT	NS	F
108	Library is very good	VT	LT	PT	NS	F
109	Exam results are used to give feedback for improvement in learning	VT	LT	PT	NS	F
110	Students are very proud of their institution	VT	LT	PT	NS	F

Appendix II: Checklist for examining changes in teacher education in Mizoram

Name of Institute:

District:

Sl. No	Dimension	Particulars	Before 1989		After 1989	
			Yes	No	Yes	No
1	Management	Established/Start of the institution				
2		Received funds from the State Government				
3		Received funds from the Central Government				
4		Recruitment done by the State Government				
5		Recruitment done by the Central Government				
6		Salary structure as per State Government				
7		Salary structure as per Central Government				
8	Teacher Education Courses/Programme	Diploma (D.T.Ed, D.El.Ed, D.Ed etc.) course				
9		Graduate (B.T, B.Ed, etc.)				
10		Post Graduate (M.Ed etc.)				
11		Pre-Service Teacher Education				
12		In Service Teacher Education				
13		Intake Capacity as per State Government norms				
14		Intake Capacity as per Central Government norms				
15		Course recognised/approved by State Government				
16		Course recognised/approved by Central Government				
17	Qualification and Cadre Management of Teacher Educators	General qualification (upto Graduate e.g. B.A, B.Sc etc.)				
18		General qualification (upto Post Graduate e.g. M.A, M.Sc etc.)				
19		Professional qualification (upto Graduate e.g. B.T, B.Ed etc.)				
20		General qualification (upto Post Graduate e.g. M.Ed etc.)				
21		Area / Subject wise staffing pattern followed				
22		Direct recruitment				
23		Promotion from school or another institute				
24		Deputation				
25		Teacher Education Cadre formed				

Appendix III: Checklist for examining infrastructure facilities (SCERT)

S. No.	Particulars	Before 1989		After 1989	
		Yes	No	Yes	No
1	Director's Room				
2	Joint Director's Room				
3	Office Staff Rooms				
4	Audio-Visual Studio				
5	Conference Hall				
6	Auditorium				
7	Seminar Rooms				
8	Library				
9	Science Lab				
10	Mathematics lab				
11	Language Lab				
12	Psychology Lab				
13	Art and Craft Room				
14	Educational Technology Lab				
15	Computer Cell				
16	Performing Arts Room				
17	Hostel /Guest House				
18	Health and Physical Education Room				
19	Toilets Facilities				
20	Canteen				
21	Drinking Water Facilities				
22	Store Room				
23	Staff Accommodation				
24	Playground				
25	Ramp				
26	T.V.				
27	VCR				
28	Educational Audio-Video CDs/DVDs				
29	Multi Media Projector and Screen				
30	Tele/Video Conference Facilities				
31	Photocopier and Scanners				
32	Studio				
33	EDUSAT				
34	Computers with Internet and Printers				
35	Games and Sports Equipment				

Appendix IV: Checklist for examining infrastructure facilities (DIET/IASE)

Name of Institute:

S. No.	Particulars	Before 1989		After 1989	
		Yes	No	Yes	No
1	One Classroom for every 50 students				
2	Multipurpose hall				
3	Library-cum-Resource Centre				
4	Curriculum Laboratory (with science and mathematics kits, maps, globes, chemicals, science kits, etc)				
5	Computer Lab				
6	Arts and Craft Resource Centre				
7	Health and Physical Education Resource Centre				
8	Principal's Office				
9	Staff Room (Faculty)				
10	Administrative Office				
11	Store Room				
12	Boys Common Room				
13	Girls Common Room				
14	Canteen				
15	Visitors' Room				
16	Separate Toilet Facility for men and women, student and teachers, staff and for PWD				
17	Parking Space				
18	Open space or lawns, gardening activities, etc				
19	Store Room				
20	Multipurpose playfield				
21	T.V.				
22	VCR				
23	Educational Audio-Video CDs/DVDs				
24	Multi Media Projector and Screen				
25	Tele/Video Conference Facilities				
26	Photocopier and Scanners				
27	Studio				
28	EDUSAT				
29	Computers with Internet and Printers				
30	Games and Sports Equipment				

Appendix V: 'Teacher Education Administrators Opinionnaire on CSSTE'

Part I: General Information

a) Name of the institute:
b) Year of Establishment of the Institute:
c) Name of respondent:
d) Designation:
e) Duration of service in the institute (in years):
f) Length of service as Principal/Director (in years):

Part II: Teacher Education

Sl. No.	Item/Statement	Agree	Partially Agree	Disagree
1	Teacher Education plan addresses the aims and objectives for quality teacher education.			
2	Our institute plays an important academic role at the state/district level.			
3	CSSTE has been fully implemented during 2012 – 2017.			
4	CSSTE has been able to strengthen our institution.			
5	There is a common cadre of Teacher Educators in which all TEIs under CSSTE is included.			
6	There is an organizational structure as mandated by the Teacher Education guidelines.			
7	There is a Recruitment/Placement Policy for Academic as well as Para/Non-Academic staff.			
8	There are new posts created to fulfill the mandate of CSSTE during 2012-2017.			
9	There is proper monitoring of CSSTE.			
10	Adequate funds are received under the CSSTE			
11	The fund flow is regular and timely received.			
12	Curriculum and syllabus of the teacher education courses are revised according to NCFTE.			
13	There are proper linkages and coordination among the TEIs.			

Sl. No.	Item/Statement	Agree	Partially Agree	Disagree
14	Restructuring and reorganization is done according to the Teacher Education guidelines.			
15	There is a Programme Advisory Committee for our institute.			
16	There is a Research Committee in our institute.			
17	There is provision for professional development of our faculty.			
18	Our institute have prepared a five-year perspective plan for the 12th Five-year plan period i.e., 2012 – 2017			
29	Our institute has prepared a database about teachers and schools.			
20	Programmes of our institute are approved by the Programme Advisory Committee.			
21	Our institute has an identified Lab Area.			
22	All the faculty are involved in the planning activities of our institute.			
23	There is sufficient number of faculty and supporting staff in our institute.			
24	Our institute also conduct activities not specified under the roles and functions in the Teacher Education guidelines.			

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BRIEF BIO-DATA OF THE CANDIDATE

NAME	:	H.LALHRUAITLUANGA
FATHER'S NAME	:	H.SAICHHUNGA
DATE OF BIRTH	:	21st March 1982
ADDRESS	:	House No. CNB – E 26 Chaltlang Lily Veng Aizawl, Mizoram PIN - 796014
GENDER	:	Male
RELIGION	:	Christian
MARITAL STATUS	:	Married
EMAIL ID	:	htluanga.hlawndo@gmail.com
EDUCATIONAL QUALIFICATION	:	M.Sc (Physics), M.Ed, NET(Edu.) PGDEPA, Dip. In Env. Mgmt. Studies
Ph.D REGISTRATION NO. & DATE	:	MZU/Ph.D./1216 of 27.07.2018
TITLE OF THESIS	:	Centrally Sponsored Scheme of Teacher Education and Total Quality Management of Teacher Education Institutions in Mizoram: An Analytical Study

PARTICULARS OF THE CANDIDATE

NAME OF THE CANDIDATE	:	H.LALHRUAITLUANGA
DEGREE	:	Ph.D
DEPARTMENT	:	EDUCATION
TITLE OF THESIS	:	Centrally Sponsored Scheme of Teacher Education and Total Quality Management of Teacher Education Institutions in Mizoram: An Analytical Study
DATE OF ADMISSION	:	27th July 2018
APPROVAL OF RESEARCH PROPOSAL	:	
1. DRC	:	15th April 2019
2. BOS	:	26th April 2019
3. SCHOOL BOARD	:	8th May 2019
MZU REGISTRATION NO.	:	2238 of 2003-04
Ph.D REGISTRATION NO. & DATE	:	MZU/Ph.D./1216 of 27.07.2018
EXTENSION	:	No.16-2/MZU(Acad)/21/313-318; Dated. 12th July, 2023

Head of Department: Prof. LOKANATH MISHRA

ABSTRACT

CENTRALLY SPONSORED SCHEME OF TEACHER EDUCATION AND TOTAL QUALITY MANAGEMENT OF TEACHER EDUCATION INSTITUTIONS IN MIZORAM: AN ANALYTICAL STUDY

AN ABSTRACT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

H. LALHRUAITLUANGA
MZU REGISTRATION: 2238 of 2003-04
Ph. D. REGISTRATION: MZU/Ph.D./1216 of 27.07.2018

DEPARTMENT OF EDUCATION
SCHOOL OF EDUCATION
SEPTEMBER 2024

ABSTRACT

CENTRALLY SPONSORED SCHEME OF TEACHER EDUCATION AND TOTAL QUALITY MANAGEMENT OF TEACHER EDUCATION INSTITUTIONS IN MIZORAM: AN ANALYTICAL STUDY

By

H. Lalhruaitluanga

Department of Education

Supervisor

Prof. Lynda Zohmingliani

Submitted

In partial fulfillment of the requirement of the degree of

Doctor of Philosophy in Education of Mizoram University, Aizawl

Introduction:

The Centrally Sponsored Scheme of Teacher Education commonly referred as Teacher Education Scheme or CSSTE was initiated in 1987 pursuant to the formulation of the National Policy on Education, 1986. The National Policy on Education (NPE) states that improvement in the status and professional competence of teachers was the cornerstone of educational reconstruction. It envisaged teacher education as a continuous process with pre-service and in-service training being its inseparable components. In its original form, the Teacher Education scheme comprised of five components, namely (a) setting up 400 District Institutes of Education and Training (DIETs), (b) strengthening 250 Colleges of Teacher Education (CTEs), and development of 50 of them as Institutes of Advanced Studies in Education (IASEs), (c) strengthening of State Councils of Educational Research and Training (SCERTs), (d) orientation of five lakh school teachers every year, (e) establishment and strengthening of Departments of Education in Universities.

The Centrally Sponsored Scheme of Teacher Education continued with modifications in the 8th, 9th and 10th, 11th and 12th Five Year Plan periods. The schemes were revised for the 12^{th} Plan in order to meet the exceptional challenges for the Teacher Education system arising from the massive spatial and numerical expansion of schooling facilities at the elementary and secondary levels and the corresponding increase in the demand for teachers. After the 12th Five Year Plan, it was subsumed under Samagra Shiksha Abhiyan along with Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA).

Teacher Education can be considered to start early in the 20th Century in Mizoram as Teacher Training was initiated in 1901 by the Christian Missionaries with only a few boys. In fact, the first batch of Mizo teacher trainees were middle school graduates whom the Christian Missionaries thought to have an aptitude for teaching. Since then, the Christian Missionaries who look after education continue to train teachers. Knowing the need and importance of teacher training, it was continued by the Government at that time and eventually Basic Training Centre was established in 1953 which later on was upgraded to Under Graduate Teacher Training Institute (UGTTI) and was later converted as Teacher Training Institute (TTI) to accommodate graduate teachers. Under the Centrally Sponsored Scheme of

Teacher Education, the two TTIs were upgraded into DIETs in 1988 (Aizawl) and 1993 (Lunglei). In the year 2005, District Resource Centres were established in the six districts having no DIETs and were later upgraded to DIETs in April 15, 2013. The sole CTE was upgraded into an IASE which today performs the dual function of IASE and CTE as there was no other CTE in the state. SCERT was established in 1980 as one wing under the Directorate of School Education. It was later on upgraded to a separate directorate in 2008.

Total Quality Management (TQM) was often understood as a management philosophy and could be considered as a strategy of managing quality of products or services which was approached comprehensively with a continuous and sustained effort. It can also mean a systems approach to the management of an institution in which all the components of the system or sub-systems are considered to produce a complex organism.

The concept of Total Quality Management in education dates back to the late 1980's when David Langford introduced to a High School in Sitka, Alaska in 1988. The popularity of Total Quality Management has grown tremendously which was evident from the plethora of books and journals since the 1990's and has been imbibed in various educational institutions even in India.

There can be various ways in which Total Quality Management was addressed in educational institutions as it relates to productivity and financing as well. More often, there was a varying perspective on the approach where some may consider student satisfaction as a crucial element while others may see it as a philosophy fostering change in the learning organization.

Mukhopadhyay and Narula (1992) have identified 10 areas or sub-systems for addressing TQM in the context of educational institutions, which were:

1.	vision, mission and goals	2.	academics
3.	personnel	4.	finance
5.	infrastructure	6.	linkages and interface
7.	student services	8.	rules, regulations, methods and procedures
9.	institution building process	10.	managing people at work

Strategic planning and organisational diagnosis were often used for introducing TQM in educational institutions. Strategic planning implies developing an institutional plan for skillful and judicious use of resources and involves elements or steps such as vision, diagnosis, strategies and programmes as well as implementation. Organizational Diagnosis is a process based upon behavioral science theory for publicly entering a human system, collecting valid data about human experiences with that system, and feeding that information back to the system to promote increased understanding of the system by its members (Alderfer, 1981). It contains a research approach leading to a statement about the functioning of the organization. It helps in improving the organizational efficiency, organizational effectiveness, or flexibility of the organization. Today institution or organization has become more important than the system. Therefore, it was very essential to understand the organization, and try to see how organization can be developed.

Rationale of the Study

In order to provide quality education to the country, the National Policy on Education 1986 proposed the setting up of a Centrally Sponsored Scheme of Teacher Education throughout the country. While funding for various components of the scheme was provided by the Central Government in accordance with the guidelines framed by it, the responsibility for day-to-day administration of the Scheme was vested in the respective states/UTs.

The application of Total Quality Management in education surfaced in the late 1980's and has become increasingly popular in the modern era of education where education is often considered as an investment and as such the government has invested huge amount of resources from pre-school education to the university level education through various grants, commissions and schemes. Teacher Education institutions play a vital role in improving the quality of education by preparing prospective teachers and providing support to become an effective teacher. It can be considered that the real dynamic force of education were teachers as mentioned in the National Policy on Education 1986, which suggested a variety of steps to improve the status of teacher with effective accountability. This has an implication on the quality of teacher education which would largely depend upon the effectiveness of teacher education institutions.

Teacher education needs to be more sensitive to the emerging demands of the school system. For this, it has to prepare teachers for a multifaceted role with the demand for quality education being a relentless pursuit. Quality can be considered as the totality of features and characteristics of product, process or service which can satisfy the innate as well as external needs. In Mizoram, the expansion of teacher education and the teacher education institutions have been observed within the past few years especially during the 12th Five-year plan i.e. during 2012 – 2017. At the same time there is a growing concern regarding decline in the quality of education system in the state.

The study has relevance in the current educational scenario because quality in education is emphasized as a present concern and Total Quality Management (TQM) is becoming popular for promoting quality in educational systems. It is imperative to ascertain the quality of teacher education institutions in the state. The rise of teacher education in Mizoram over the last decade or so also needs to be studied.

More importantly, the study has special significance because a serious attempt to find out the impact of Centrally Sponsored Scheme of Teacher Education and Total Quality Management in teacher education institutions has been made. The fact that Centrally Sponsored Scheme of Teacher Education as an independent scheme has been discontinued makes it even more important to collect pertinent facts about it to open doors for comparisons with other schemes. The study was an attempt to glimpse teacher education as a process as well as a product, it was also worthwhile for the institutions under study as well since it has been an attempt to realise their strengths and weaknesses which they may use as an opportunity to move forward.

Thus, this study may be beneficial for planners, managers and other academicians as well, as it was an attempt to disclose the plan and programme implementation under a heavily financed scheme for quality education in a comprehensive manner. It is but the need of the hour to examine the reality of teacher education in Mizoram and its true potential of spearheading quality education so as to ascertain the resources invested so far and the projected future investment would not prove to be futile.

Statement of the Problem

The problem of the present study has been stated as 'Centrally Sponsored Scheme of Teacher Education and Total Quality Management of Teacher Education Institutions in Mizoram: An analytical Study' to assess the development as well as the capacity of Teacher Education Institutions in Mizoram in the light of the Centrally Sponsored Scheme of Teacher Education and to ascertain the quality of Teacher Education Institutions therein.

Operational Definitions of Key Terms

Centrally Sponsored Scheme of Teacher Education:

A scheme initiated in 1987 pursuant to the formulation of the National Policy on Education, 1986 and sanctioned by the Ministry of Human Resource Development, Govt. of India and often referred as Teacher Education Scheme or CSSTE. In its original form, the Teacher Education scheme comprised of five components, namely (a) setting up 400 District Institutes of Education and Training (DIETs), (b) strengthening 250 Colleges of Teacher Education (CTEs), and development of 50 of them as Institutes of Advanced Studies in Education (IASEs), (c) strengthening of State Councils of Educational Research and Training (SCERTs), (d) orientation of five lakh school teachers every year, (e) establishment and strengthening of Departments of Education in Universities

The Centrally Sponsored Scheme of Teacher Education has been revised for the 12th Plan in order to meet the exceptional challenges for the teacher education system arising from the massive spatial and numerical expansion of schooling facilities at the elementary and secondary levels and the corresponding increase in the demand for teachers. The main components of the revised Scheme are as under:

i. Strengthening and up-gradation of State Councils for Educational Research and Training/State Institutes of Education
ii. Strengthening of existing IASEs and up-gradation of Departments of Education of Universities into IASEs
iii. Strengthening of CTEs and establishment of new CTEs
iv. Strengthening of existing DIETs and extending their mandate for training of teachers at the secondary level.

v. Establishment of Block Institutes of Teacher Education (BITEs) in 196 identified SC/ST/ Minority concentration districts as elementary pre-service teacher education institutions

vi. Identification of 50 lead institutions, including Departments of Education in Universities, NUEPA, NCERT, Academic Staff Colleges and other institutions in the non-Government sector to conduct refresher courses for teacher educators.

vii. Provide hardware support, namely provisioning of satellite transmission facilities in the DIETs and provisioning of software support for developing content for orientation of teacher educators and teachers.

viii. Giving SCERTs and DIETs the mandate to involve not-for-profit organizations for conducting innovative field-based programmes relating to teacher education, collaboration in in-service and pre-service teacher education, undertaking impact assessment studies and designing & developing locally relevant material for teachers and student-teachers of teacher education institutions.

ix. Developing and putting in place a comprehensive monitoring mechanism.

Total Quality Management:

Often understood as a management philosophy. In this study, it will refer to a systems approach to the management of an institution in which all the components of the system or sub-systems are considered to produce a complex organism. The proposed study will attempt to ascertain Total Quality Management in Teacher Education Institutions in Mizoram based on 11 areas of quality such as – Leadership, Teacher quality, Linkages and interface communication with the environment, Students: academic and non-academic quality, Co-curricular activities: non-scholastic areas, Teaching: quality of instruction, Office management: support services, Relationship: corporate life in the institution, Material resources: instructional support, Examination: purposefulness and methodology and Job satisfaction: staff morale

Teacher Education Institutions:

According to NCTE, a programme of education, research and training of persons to teach from pre-primary to higher education level is known as teacher education. Those institutions imparting teacher education are Teacher Education Institutions. In this study, it will refer to the 8 DIETs of Mizoram which are DIET Aizawl, DIET Lunglei, DIET Saiha, DIET Champhai, DIET Kolasib, DIET Serchhip, DIET Lawngtlai and DIET Mamit as well as IASE Aizawl and SCERT, Mizoram.

Research Questions of the study

Considering the research topic, the following research questions have been raised:

1. Would it be possible to trace the origin and development of Centrally Sponsored Scheme of Teacher Education in Mizoram?
2. What are the changes brought about by the Centrally Sponsored Scheme of Teacher Education in Mizoram?
3. What are the problems and challenges faced by the stakeholders in implementing Centrally Sponsored Scheme of Teacher Education?
4. How do teacher educators perceive their institutions in terms of quality management?
5. Is there any difference among male and female teacher educators regarding the total quality management of their respective institutions?
6. How do teacher trainees perceive their institutions in terms of quality management?
7. Is there any difference among male and female teacher educators regarding the total quality management of their respective institutions?
8. Will there be any difference in the total quality management of teacher education institutions in Mizoram?
9. Is there any difference between teacher educators and teacher trainees regarding the total quality management of their respective institutions?
10. Can any measures be taken in order to strengthen teacher education institutions in Mizoram?

Objectives of the Study

Based on the research questions, the following are the objectives for the study:

1. To trace the origin and development of Centrally Sponsored Scheme of Teacher Education in Mizoram.
2. To examine the changes that have taken place in teacher education in Mizoram since the implementation of Centrally Sponsored Scheme of Teacher Education.
3. To examine the problems and challenges faced by the stakeholders in the implementation of Centrally Sponsored Scheme of Teacher Education.
4. To examine the perception of teacher educators about Total Quality Management of teacher education institutions in Mizoram.
5. To compare the perception of male and female teacher educators about Total Quality Management of teacher education institutions in Mizoram.
6. To examine the perception of teacher trainees about Total Quality Management of teacher education institutions in Mizoram.
7. To compare the perception of male and female teacher trainees about Total Quality Management of Teacher education institutions in Mizoram.
8. To compare the Total Quality Management of teacher education institutions in Mizoram.
9. To compare the perception of teacher trainees and teacher educators about Total Quality Management of teacher education institutions in Mizoram.
10. To suggest measures for strengthening teacher education institutions in Mizoram.

Hypothesis of the study

The following research hypotheses were framed:

1. Teacher educators of teacher education institutions in Mizoram have a positive perception about Total Quality Management of teacher education institutions in Mizoram.
2. There is a significant difference between the perception of male and female teacher educators about Total Quality Management of teacher education institutions in Mizoram.
3. Teacher trainees of teacher education institutions in Mizoram have a positive perception about Total Quality Management of teacher education institutions in Mizoram.

4. There is a significant difference between the perception of male and female teacher trainees about Total Quality Management of teacher education institutions in Mizoram.
5. There is a significant difference between the perception of teacher trainees and teacher educators about Total Quality Management of teacher education institutions in Mizoram.

Review of Related Literature

A review of literature related to the study was done by the scholar in order to know more about the status of researches done and also to understand the findings of other researchers on the topic. For a period of **58 years** spanning from **1964 to 2022,** a total of **36** research works could be traced. Out of these 7 were from outside India and **22** were from India and the rest **7** studied were found in Mizoram. But no such study has been done in Mizoram and this aroused the curiosity of the researcher as this was a serious case of research gap.

The review of related literature and studies concerning the institutional studies revealed that there was a common trend in India and abroad that the programmes conducted by University Departments, Education Department of various states, SCERT/SIEs, DIETs, CTE and IASE contributed to a qualitative change in the teaching-learning process. Most of the teacher training contributes effectively towards checking wastage. Teaching experience and the aptness of in-service education of teacher-educators can be associated to some extent. Majority of the training respondents were not satisfied with the training programmes. Equipment provided was adequate to a great extent but often poor in quality and inadequately utilized. There was an inadequacy of grants received. Well documented historical study of Teacher Education in Mizoram has not been realised to this effect.

Regarding Total Quality Management, the reviewed literature also revealed that most of the aspects of Total Quality Management was applicable in the field of education in general and has indeed been used for research concerned with qualitative improvement of teacher education institutions and was considered as an urgent need for overhauling the quality of teacher education institutions.

Several studies have been done in this area abroad and in other states within India. However, in Mizoram, research studies in this field leave much to be desired. There has been no research study which trace the history, origin and development of teacher education in Mizoram and furthermore there has been no such study with related to Total Quality Management in Mizoram to that effect.

Since there has been no comprehensive study conducted in the state, the present study will possess novelty of the work done in this direction and give much needed insight into the status and possibilities in teacher education within the state. No such research has been known to be done in Mizoram and if anyone wants to undertake this kind of research the present research will provide a scale for future references.

Methodology

Research Design

The present study was historical as well as descriptive in nature. A mixed method research design has been used in which both quantitative and qualitative data were used for the study. The topic of the research chosen entailed dual approaches to help explain the problem or phenomenon in a detailed manner. The researcher adopted descriptive research method since it was a descriptive study of an exploratory nature, even though it included co-relational elements.

Document Analysis as well as Survey and Descriptive Research Method was used in order to investigate the present problem. The general framework of the study was collecting and analyzing data related to capacity and performance of Teacher Education Institutions in Mizoram. Its major focus was to study and describe the growth and development of Teacher Education Institutions in Mizoram and dealt with collection of information through survey of records regarding the origin and development of the Teacher Education Institutions in Mizoram along with Annual Work Plan and Budget as well as the Teacher Education Approval Board (TEAB) minutes. This was supplemented by an information schedule in which checklist and opinionnaire were prepared and administered to the institutional heads (i.e Principals of TEIs and Director in the case of SCERT) regarding implementation of teacher education scheme and the problem faced by them in implementing the different programmes and activities.

Mukhopadhyay's Institutional Profile Questionnaire (MIPQ) was used as survey tool regarding TQM of teacher education institutions which was developed by M. Mukhopadhyay in 2001 to find out the Total Quality Management of teacher educators and teacher trainees in the teacher education institutions.

Population and Sample

For the present study, the teacher educators of all the Teacher Education Institutions in Mizoram that come under the Centrally Sponsored Scheme of Teacher Education were considered as population. At the time of conducting this study, there were 29 academic staff in SCERT, Mizoram, 14 teacher educators in IASE and 117 teacher educators in the DIETs of Mizoram and no sampling was made and the whole universe was studied. Also, teacher trainees of the Teacher Education Institutions under study were considered as population here and no sampling was done. The actual enrollment of DIETs and IASE during 2022-23 were given in the following table:

Table 1

Teacher Trainees enrollment of DIETs and IASE (2022-23)

Sl. No	Name of the Institute	Course/ Program	Enrolment						Total Enrolment
			1st year			2nd year			
			Male	Female	Total	Male	Female	Total	
1	DIET Aizawl	D.El.Ed	39	81	120	44	72	116	236
		B. Ed	25	25	50	20	27	47	97
2	DIET Lunglei	D.El.Ed	30	33	63	23	35	58	121
		B. Ed	24	26	50	15	32	47	97
3	DIET Saiha	D.El.Ed	29	20	49	24	28	52	101
4	DIET Champhai	D.El.Ed	14	36	50	10	28	38	88
5	DIET Kolasib	D.El.Ed	13	37	50	14	31	45	95
6	DIET Serchhip	D.El.Ed	10	40	50	11	36	47	97
7	DIET Lawngtlai	D.El.Ed	14	36	50	15	35	50	100
8	DIET Mamit	D.El.Ed	19	31	50	13	24	37	87
9	IASE	B. Ed	48	86	134	46	82	128	262
		M.Ed	8	21	29	10	28	38	67
	Total		**273**	**472**	**745**	**245**	**458**	**703**	**1448**

Source: Samagra Shiksha Mizoram – Annual Work Plan and Budget 2023-24

Tools used

In order to investigate the problem, the researcher employed the following tools:

For Primary data collection, the following tools were used for obtaining information and collection of data.

a. Information Schedule was prepared in which Opinionnaire and Checklist were prepared and administered to concerned officers responsible for implementing the Centrally Sponsored Scheme of Teacher Education in Mizoram. These were: i) Director, SCERT Mizoram, ii) Principal, IASE Aizawl, iii) Principals of 8 DIETs of Mizoram

b. Office documents: Various documents were collected from SCERT Mizoram and analysed. These documents include – i) Perspective Plan for 2012 – 17 and Annual Work Plan and Budget of Teacher Education in Mizoram which were SCERT Mizoram, IASE Aizawl and 8 DIETs of Mizoram and ii) Teacher Education Approval Board Meeting Minutes and sanction letter for the state of Mizoram from the year 2012 to 2017.

c. Mukhopadhyay's Institutional Profile Questionnaire (MIPQ) was administered to teacher educators and teacher trainees. The MIPQ consists of 110 items to assess teachers' perception relating to their satisfaction with eleven dimensions/sub-areas such as principal as a leader, teacher quality, linkages and interface, students, co-curricular activities, teaching, office management, relationships material resources, examination and job satisfaction.

The reliability of the tool was checked through test-retest method. The reliability coefficient *r* was 0.999. Therefore, the scale was considered reliable.

For Secondary data collection, UDISE report and Office files related to Centrally Sponsored Scheme of Teacher Education were collected. Document analysis was used in which various documents were interpreted by the investigator to give voice and meaning around the topic of study. The following documents were analyzed-

i. Perspective Plan and Annual Work Plan and Budget

The main document analysed was the Perspective Plan of for 2012-17 and the corresponding Annual Work Plan and Budget of Teacher Education in Mizoram which included SCERT Mizoram, IASE Aizawl and 8 DIETs of Mizoram. The document analysed was from the year 2012-2013 to 2017-2018.

ii. TEAB Meeting Minutes and sanction letter

The investigator focused on the Teacher Education Approval Board (TEAB) of the Ministry of Human Resources Development (MHRD) minutes from 2012 to 2017 for the state of Mizoram. The sanction letter of the MHRD was also analysed as there could be implications regarding the amount of funds received and the time gap therein which could result in the performance of the institution under study.

Procedure of Data Collection

For the study, data was collected personally by the researcher. Opinionnaire and checklist were used to collect data from the implementing officers of the Centrally Sponsored Scheme of Teacher Education in the State by means of an Opinionnaire and Checklist. Mukhopadhyay's Institutional Profile Questionnaire was administered to the teacher educators as well as teacher trainees.

Data Analysis

Both Qualitative and Quantitative techniques were used to analyse the data. For qualitative analysis, document analysis was done. For quantitative analysis collected data was scored, tabulated and analyzed using appropriate statistical techniques. Where applicable, descriptive statistics were used along with parametric statistics like t test and ANOVA for comparison.

Major Findings

The major findings of the present study were categorically discussed as follows.

I. Origin and development of Centrally Sponsored Scheme of Teacher Education in Mizoram.

The researcher through the use of available literature, office records and annual reports of respective institutions has prepared the origin and development of CSSTE. Teacher training in Mizoram was started as early as 1901 by the British missionaries. After India gained independence the state government continue to run

the teacher training institutes established in Aizawl (1953) and Lunglei (1974) which later became DIETs, the TTI at Aizawl was upgraded to DIET in 1988 and the TTI at Lunglei was upgraded to DIET in 1993. The state government also set up Mizoram Institute of Education in 1975 which later became College of Teacher Education (CTE) and was later upgraded to Institute of Advance Study in Education (IASE) in 2005. SCERT was established as an Academic Wing under the Directorate of School Education in 1980 and later was made a separate Directorate in 2008. After Centrally Sponsored Scheme of Teacher Education was introduced in the state of Mizoram, existing TEIs were upgraded and supported and as a result, there were 8 DIETs, 1 IASE and 1 SCERT in the state of Mizoram which were the Teacher Education Institutions funded under the scheme. All the eight DIETs offer Diploma in Elementary Education (D.El.Ed) courses and additionally DIET Aizawl and DIET Lunglei also offered Bachelor of Education (B.Ed) courses. IASE Aizawl offered B.Ed as well as Master of Education (M.Ed) courses.

II. Changes that have taken place in teacher education in Mizoram since the implementation of Centrally Sponsored Scheme of Teacher Education.

The changes that have taken place in teacher education in Mizoram since the implementation of Centrally Sponsored Scheme of Teacher Education was analysed by the researcher through checklist. Since Teacher Education was started way before CSSTE in Mizoram, the changes in Teacher Education in Mizoram before and after implementation of CSSTE were observed on the basis of various dimensions.

Table 2

Changes in Teacher Education in Mizoram before and after CSSTE

Sl. No	Dimension	Before CSSTE (before 1987)	After CSSTE (1988 - 2017)
1	No. of Teacher Education Institutions	4	10
2	Management	State Government	State Government and Central Government
3	Minimum Qualification of Teacher Educators	Graduate	Post Graduate
4	Infrastructure	4 institute building with minimal equipment and facility	10 institute building equipped with better facility and technology

5	Pay structure	As per state government	As per state government
6	Recruitment of faculty	Direct and Promotion	Direct and Promotion
7	Courses offered	Diploma & Graduate level	Diploma, Graduate and Post Graduate Level

Source: Survey

As can be seen from the above Table 2 there were only four (4) Teacher Education Institutions in Mizoram prior to CSSTE. These four TEIs were strengthened and upgraded under CSSTE and continue to progress eventually. The first and the oldest professional training institute was started at Aizawl in 1953 as a Junior Basic Training Centre which was meant for training of untrained Primary school teachers and was later amalgamated with Normal Training School which was meant to train untrained Middle school teachers and was renamed as Under-graduate Teacher Training Institute (UGTTI) in 1974. At the same year UGTTI was started in Lunglei. These UGTTIs were state run institutes meant for training of undergraduate teachers who were mostly Primary School and Middle School teachers. These UGTTIs were upgraded to Teacher Training Institute (TTI) in 1980 to accommodate training for Graduate Teachers. After CSSTE was implemented by the central government, TTI at Aizawl was upgraded to DIET in 1988 and TTI at Lunglei was upgraded to DIET in 1993. The teacher education programme/course offered by these two institutes were diploma level. However, in 2017 these two DIETs were granted recognition to run B.Ed course/programme by the National Council for Teacher Education (NCTE).

In 1975, Mizoram Institute of Education (MIE) was started at Aizawl for training of Secondary school teachers. It later became the College of Teacher Education (CTE) in 1997 after the implementation of CSSTE in Mizoram. It was further upgraded to IASE in 2005 and began functioning as an IASE from March 2012. IASE Aizawl offers both B.Ed and M.Ed courses at present, but prior to CSSTE while it was MIE, it offers graduate level teacher education programme i.e B.Ed or formerly B.T (Bachelor of Teaching).

SCERT Mizoram was established in 1980 as a state counterpart of the NCERT at the central. Apart from short course teacher training programmes it did

not offer teacher education programme/course prior to CSSTE. Even after the implementation of CSSTE in Mizoram, there was no degree or diploma course run by SCERT Mizoram under the scheme but various programmes and activities were undertaken under CSSTE. However, SCERT Mizoram run B.Ed (Special Education) programme which was recognized by Rehabilitation Council of India and was not funded under CSSTE.

In addition to the four TEIs mentioned above, six (6) District Resource Centres or Telescopic DIETs were established in 2005 under CSSTE and were later upgraded to full-fledged DIET in 2013. Unlike the two aforementioned DIETs, these DIETs were not state borne institute upgraded under CSSTE but institutions purely established under CSSTE and upgraded under the same scheme to DIETs. While they function as DRCs, these institutes did not run teacher education courses but various programmes and activities including short course teacher training were carried out under the scheme which was funded from the central government. After they were upgraded to DIETs, these 6 DIETs were granted recognition from NCTE to run Diploma in Elementary Education (D.El.Ed) in 2016.

Thus, CSSTE has resulted in upgradation of three (3) existing institutes (DIET Aizawl, DIET Lunglei and IASE Aizawl) and establishment and upgradation of 6 new institutes (6 DIETs viz. DIET Saiha, DIET Champhai, DIET Kolasib, DIET Serchhip, DIET Lawngtlai and DIET Mamit) and strengthening of an existing institute at SCERT Mizoram.

Most of the physical changes as observed by the investigator happened due to the sanction received under CSSTE. SCERT Mizoram received funds for Physical Infrastructure development as a Non-Recurring Expenditure under CSSTE which was approved in 2012-13. A new building called SCERT Multipurpose building was constructed for an amount of Rs175.68 lakhs as approved by the TEAB. Equipment to the tune of Rs 30.00 lakhs (Rupees thirty lakhs) was purchased through the State Purchase Advisory Board. Special Cells were also established in Science and Mathematics, Social Sciences and ICT.

Two existing DIETs at Aizawl and Lunglei received funds for construction of Hostel buildings as approved in 2012 by the TEAB for an amount of Rs. 198.49 lakhs (DIET Aizawl) and Rs.216.31 lakhs (DIET Lunglei). At the same time, the

then six DRCs were approved for construction of their main institute buildings with an amount of Rs. 279.25 lakhs for DIET Saiha, Rs. 241.46 lakhs for DIET Champhai, Rs. 223.46 lakhs for DIET Kolasib, Rs. 233.53 lakhs for DIET Serchhip, Rs. 274.38 lakhs for DIET Lawngtlai and Rs. 233.70 lakhs for DIET Mamit. For similar type of construction works/type of building i.e., Hostel building in the case of DIET Aizawl and Lunglei and Institute building in the case of the 6 new DIETs, the difference in the amount of approval was due to difference in the cost index for different districts as per the Schedule of Rates of the state Public Works Department during that time.

Assistance for purchase of equipment was approved by the same TEAB in 2012 to the tune of Rs 20 lakhs each for DIET Aizawl and Lunglei and Rs. 10 lakhs each for the then six DRCs.

A non-recurring grant for IASE Aizawl was also approved in 2012 by the TEAB to an amount of Rs 25 lakhs for Vertical extension of the existing institute building. No Equipment grant was approved for IASE Aizawl.

The above mentioned non-recurring grants for SCERT, 8 DIETs and IASE Aizawl were sanctioned in two installments. The 1st installment was sanctioned in 26.02.2013 and the 2nd installment was sanctioned in 01.06.2015 after a gap of two years. No other non-recurring grant was received during the 12th Five-year plan period i.e from 2012 to 2017.

However, on a closer scrutiny of the then TEAB minutes, it was found that an amount of Rs. 3122.29 lakhs for Civil Works of 8 DIETs and Rs 20 lakhs for Equipment of IASE Aizawl was approved in 2013. However, sanction was not given and there was no further mention of the approved non-recurring expenditure for the year 2013-14.

SCERT Mizoram was quite busy in performing various programmes and activities. During the period of study, SCERT Mizoram conducted an average of 102 different programmes and activities every year through its various departments and wings/cells. Teacher Education and Extension Services alone conducted 106 different programmes and activities which was mainly the utilization of Recurring Expenditure components of the CSSTE. This seems to be the resultant of the revision of the CSSTE which among other things have increased the availability of funds.

Apart from salary component DIETs and IASE received funds for Programmes and Activities every year from 2012 to 2017. These were the main regular features of funds received under Recurring component. Occasionally, funds for Faculty development, technology support, computer consumables and contingency were approved and sanctioned. Thus, maintenance of these institutes and the works that they did was majorly funded under CSSTE.

One of the major changes which takes place was in the planning process. Institutional planning was extensively used for formulating Annual Work Plan as well as Perspective Plan which was a positive change as not only SCERT but other Teacher Education Institutions like DIETs and IASE came up with a plan of their own to be consolidated in the state Teacher Education plan.

On the other hand, there were other things which remained 'status quo' against desired. The Restructuring and Reorganisation of Teacher Education as desired by the Guidelines in 2012 did not happen during this period. At the same time Teacher Education cadre was not created. Also, there was no new post created in SCERT, Mizoram under CSSTE during 2012-2017.

In the case of IASE Aizawl, it took seven long years to start functioning as an IASE even after its upgradation from CTE in 2005 to 2012. Creation of posts and filling up of posts started late in 2016 for IASE Aizawl.

There were 99 posts created in DIETs during 2012 – 2017. However, casual vacancy was not filled for a prolonged period of time. At the onset of upgrading TTI Lunglei to DIET in 1993, only 4 Senior Lecturer posts was created as against the DIET Guidelines which mention that there should be 7 Senior Lecturer posts in a DIET. Again, when 6 DRCs were upgraded to DIETs in 2013 there was no Senior Lecturer posts created and even at the end of the CSSTE these 6 DIETs were devoid of Senior Lecturer posts. Only DIET Aizawl have the required number of Senior Lecturer posts.

Thus, the changes that have taken place in Teacher Education in Mizoram in implementation of CSSTE was mostly physical infrastructure development and process of planning. However, structural changes and reorganization failed to materialize during this period.

III. Problems and challenges faced by the stakeholders in the implementation of Centrally Sponsored Scheme of Teacher Education.

An opinionnaire was prepared and administered to heads of institutions to gather information regarding the problems and challenges faced by TEIs in Mizoram. Information was also collected from relevant documents pertaining to CSSTE and document analysis was done. The opinionnaire coupled with an analysis of various documents were used to examine the problems and challenges faced by the stakeholders in the implementation of Centrally Sponsored Scheme of Teacher Education which was classified into various dimensions as follows:

Table 3

Problems and challenges in CSSTE

S.N	Dimension	Problems and challenges	Observations
1	Management	i. Organisational structure ii. Funding iii. Fund flow	i. The organisational structure was not as mandated by the teacher education guidelines. ii. Adequate funds were not received. iii. Fund flow was irregular and funds were not received in time.
2.	Teacher education programme	i. Faculty professional development ii. Programme approval iii. Research committee	i. Insufficient provision for faculty professional development ii. Most programmes not approved by Programme Advisory Committee iii. Research committee not properly formed
3	Qualification	i. Common cadre of Teacher Educators ii. Creation of posts iii. Restructuring and reorganization	i. Teacher Education cadre not formed as per guidelines. ii. Posts not created and filled as per guidelines. iii. Restructuring and reorganization not done according to guidelines
4	Infrastructure	i. Database ii. Lab area	i. Institutes did not prepare database of teachers and schools ii. Institutes did not have identified Lab area

Source: Survey

From table 3 it was obvious that the Centrally Sponsored Scheme of Teacher Education, Guidelines for Implementation, June 2012 was not fully followed in the implementation of CSSTE in Mizoram especially in terms of organizational structure, restructuring and reorganization and creation of common cadre for teacher educators. The failure to create a common cadre of teacher educators must be a resultant effect of failure to restructure and reorganize teacher education in Mizoram.

The teacher education institutions seemed to have fallen behind in creating database and Lab area. Various committee like Programme Advisory Committee and Research Committee were not formed or functioning as desired by the guidelines.
Funding and fund flow seemed to be a major problem faced by the stakeholders. It was obvious that funds were often released late by looking at the date of sanction orders issued from time to time. The employees of teacher education institutions would probably face late payment of salary and many of their programmes and activities would not have been carried out in time due to late receipt of funds.

There also seems to be an inadequacy in human resources. Vacant posts remained unfilled for a prolonged period of time creating problems and difficulties in implementing various programmes and activities. There was huge vacancy in the DIETs and many posts were not even created as per the guidelines. Moreover, professional development seemed to be a major challenge even though the guidelines advocate professional development of teacher educators.

One of the most profound issues regarding teacher education in Mizoram during this period may be that, despite the MHRD's best efforts, the state of Mizoram has not been able to implement the restructuring and reorganisation of teacher education as per the teacher education guidelines intents and purposes.

IV. Perception of teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram.

Mukhopadhyay's Institutional Profile Questionnaire (MIPQ) was administered to study Total Quality Management of Teacher Education Institutions in Mizoram. The test items pertain to 11 sub areas or domains which were –

1. Principal as Leader
2. Teacher Quality
3. Linkages and Interface

4. Students
5. Co-curricular Activities
6. Teaching
7. Office Management
8. Relationships
9. Material Resource
10. Examination
11. Job Satisfaction

The perception of teacher educators about Total Quality Management of each institution were analysed against the average perception scores of the teacher educators in the 11 areas of quality indicators. The test was administered to teacher educators. SCERT Mizoram was not included in the test as teacher education course/programme was not run by SCERT Mizoram under CSSTE.

Considering all the 10 Teacher Education Institutions, the cut-off point was 8.53. The overall score of teacher educators across teacher education institutions indicated that the areas falling under the cut-off point were the weak areas and those above the cut-off point were the strong areas. The weak areas of Teacher education institution were linkage and interface, office management, material resource and job satisfaction. The areas above the cut-off point were identified as strong areas which were principal as leader, teacher quality, student quality, co-curricular activities, teaching, relationships and examination. Students could be considered neither strong nor weak. Principal as a leader as well as relationships were the strongest area of the teacher education institutions with average score of 10.48 while the weakest area of was linkages and interface with an average score of 3.50.

The overall score of teacher educators of various Teacher Education Institutions was positive for all the sub-areas as well as for each institution albeit a chance of being a negative average score which indicates that teacher educators of Teacher Education institutions in Mizoram have a positive perception about Total Quality Management of Teacher Education Institutions in Mizoram. The first hypothesis which stated that teacher educators of Teacher Education Institutions in Mizoram have a positive perception about Total Quality Management of Teacher Education Institutions in Mizoram was proved and accepted.

V. Perception of male and female teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram.

To compare the perception of teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram, the perception of teacher educators was studied with reference to their gender. For this, the mean and standard deviation of the scores of both male and female groups were calculated. There were 38 male and 65 female teacher educators subjected to the test. Then, t-test was carried out to find out the significant difference in the means between the male and female teacher educators.

The t-test examined if the means of the two groups were equal. And it was found that there was no significant difference between the means. Thus, the null hypothesis which stated that 'there is no significant difference between the perception of male and female teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram' was proved and accepted.

VI. Perception of teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram.

The perception of teacher trainees about Total Quality Management was analysed against the average perception scores of the teacher trainees in the following 11 areas of quality indicators.

Considering all the 10 Teacher Education Institutions, the cut-off point was 6.85. The overall score of teacher trainees across teacher education institutions indicates that the areas falling under the cut-off point were the weak areas and those above the cut-off point were the strong areas. The weak areas of teacher education institution as per teacher trainees were linkage and interface, office management, material resource and examination. The areas above the cut-off point were identified as strong areas which were principal as leader, teacher quality, student quality, co-curricular activities, teaching, relationships and job satisfaction. Principal as a leader was the strongest area of the teacher education institutions with average score of 9.60 while the weakest area of the teacher education institutions was linkages and interface with an average score of 2.22.

The overall score of teacher trainees of various Teacher Education Institutions was positive for the sub-areas as well as for each institution albeit a

chance of being a negative average score which indicated that Teacher trainees of Teacher Education institutions in Mizoram had a positive perception about Total Quality Management of Teacher Education Institutions in Mizoram and thus the third hypothesis which states that teacher trainees of Teacher Education institutions in Mizoram have a positive perception about Total Quality Management of Teacher Education Institutions in Mizoram was proved and accepted.

VII. Perception of male and female teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram.

The perception of teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram was compared with reference to their gender. For this, the mean and standard deviation of the scores of both male and female groups were calculated. There were 208 male and 331 female teacher trainees subjected to the test. Then, t-test was carried out to find out the significant difference in the means between the male and female teacher trainees.

The t-test examined if the means of the two groups were equal. It was found that male teacher trainees have lower mean than those of female teacher trainees which indicate that female teacher trainees have a more positive perception about Total Quality Management of Teacher Education Institutions in Mizoram. Hence, the null hypothesis which stated that 'there is no significant difference between the perception of male and female teacher trainees about Total Quality Management of Teacher Education Institutions in Mizoram' was negated and rejected.

VIII. Perception of various Teacher Education Institutions about Total Quality Management of Teacher Education Institutions in Mizoram.

The perception of various Teacher Education Institutions about Total Quality Management of Teacher Education Institutions in Mizoram was compared using data collected from teacher educators. One-way ANOVA was carried out using SPSS. Since the analysis showed a significant difference, post hoc analysis was done using Tukey HSD to further identify the differences across various teacher education institutions.

It was found that IASE Aizawl had a significantly higher mean than DIET Aizawl, DIET Serchhip and DIET Mamit. There were no significant mean differences between IASE Aizawl and the other institutions (DIET Lunglei, DIET Saiha, DIET Champhai, DIET Kolasib, and DIET Lawngtlai). All other pairwise

comparisons had adjusted P values greater than 0.05, indicating no significant differences between those pairs of institutions. These findings suggested that IASE, Aizawl had higher Total Quality Management values compared to others in the study.

IX. Perception of Teacher Trainees and Teacher Educators about Total Quality Management of Teacher Education Institutions in Mizoram.

The perception of teacher trainees and teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram was compared using T-test. For this, the mean and standard deviation of the scores of teacher trainees and teacher educators were calculated. Then, t-test was carried out to find out the significant difference in the means between teacher trainees and teacher educators.

From the t-test it was found that teacher trainees had lower mean than teacher educators which indicate that teacher educators had more positive perception about Total Quality Management of Teacher Education Institutions in Mizoram. Hence, the null hypothesis which stated that 'there is no significant difference between the perception of teacher trainees and teacher educators about Total Quality Management of Teacher Education Institutions in Mizoram' was rejected.

X. Measures for strengthening Teacher Education Institutions in Mizoram.

Considering the problems and challenges faced by the stakeholders and the changes that have taken place in teacher education in Mizoram since its initiation, here were some measures to strengthen Teacher Education Institutions in Mizoram:

A. Suggestions based on objectives of the study

1. Academically, continuous professional development should be prioritized. Faculty members of the Teacher Education Institutions in Mizoram should be professionally empowered through planned capacity building strategy. For immediate action, arrangement may be made so that the faculty of SCERT Mizoram and DIETs may gain higher professional degree as many of the teacher educators possess professional degree up to graduate level only. *(Objective 2)*
2. Restructuring and reorganisation of teacher education needs to be done so as to meet the growing demand of school education vis-à-vis teacher education in the light of the National Education Policy 2020. This would also pave a way for creating a common cadre of teacher educators. *(Objective 2)*

3. A strong process for selection of professionals to work in the right place must be ensured. Rationalisation of teacher educators/faculty must be done. *(Objective 3)*
4. Shortage of manpower needs to be addressed and new posts were needed to be created modelling the structure of the Teacher Education Guidelines. *(Objective 3)*
5. Financially, greater resource support needs be provided by the Central Government to the State Governments in enabling them to revitalize the teacher education by making financial norms more flexible to accommodate the challenges in these hilly and difficult terrain areas. The Centre and the State needs to ensure that funds were released on time so that salaries could be paid and activities undertaken as per plan. *(Objective 3)*
6. Augmentation of infrastructure and instructional facilities were essential. Physical infrastructure, including training halls, dormitories, rooms, labs, etc., must be upgraded to meet the unique needs of the state. *(Objective 3)*
7. Partnerships with local schools and communities need to be fostered to provide student teachers with real-world experience and networking opportunities, enabling them to engage in meaningful outreach and extension activities. *(Objective 4 & 6)*
8. Establish mentorship programs, pairing experienced teachers with student teachers, to provide guidance and support. *(Objective 4 & 6)*
9. Develop collaborations with national and international institutions, organizations, and experts to enrich teacher education. Collaborate with other teacher education institutions, universities, and organizations to share best practices and resources. *(Objective 4 & 6)*
10. Provide comprehensive support services, including counselling, guidance, and career advice, to student teachers. Also, regularly assess and provide constructive feedback to student teachers to improve their teaching skills. *(Objective 4 & 6)*
11. Establish a strong alumni network, fostering connections between graduates, institutions, and the education community. *(Objective 4 & 6)*
12. Additionally, there was a requirement to guarantee administrative and academic convergence both inside the institution and throughout the system's many institutions. It was necessary to prepare for scheduled faculty meetings that center on academic matters. Apart from the social media platforms such as

Facebook, WhatsApp, and the like that were being used, a platform or forum for exchanging ideas and best practices needs to be established. *(Objective 4 & 6)*

B. General suggestions

1. Teacher education curricula must be reviewed and updated to align with changing educational needs and standards especially in the light of NEP 2020 emphasizing practical skills and community engagement
2. Focus on local context by incorporating Mizoram's unique cultural, linguistic, and geographical context into teacher education programs.
3. Leverage technology to enhance teaching and learning, including online resources, digital tools, and multimedia content. Incorporate technology into teacher education programs to equip teachers with digital literacy and online teaching skills.
4. Encourage research and innovation in teacher education, focusing on local contexts and educational challenges to inform policy and practice.
5. Another crucial element that must be taken into account was building teacher educators' support networks and strengthening their research capacity. To take initiative, the Research Committee must be strengthened. It may be necessary to organize a committee of teacher educators to reformulate and assess the in-service teacher development programs. Additionally, a flexible and useful Training Management System must be employed.
6. It was also necessary to strengthen library for the documentation and preservation of instructional books and resources created for different school levels.
7. Practical training and hands-on/field experiences may be intensified for student teachers, including internships and mentorship programs ensuring they were well-prepared for real-world teaching challenges.
8. Regularly monitor and evaluate the effectiveness of teacher education programs, making data-driven decisions to drive improvements.

XI. Reflection of TQM of TEIs through CSSTE.

The Centrally Sponsored Scheme of Teacher Education (CSSTE) aims to improve the quality of teacher education in India. TQM is a management approach that emphasizes continuous improvement, employee involvement, and customer satisfaction.

In the context of TEIs, TQM principles can be applied to:

1. Improving academic programs: TEIs can use TQM to design and deliver high-quality academic programs that meet the needs of students and stakeholders.
2. Enhancing teaching and learning: TQM can help TEIs to improve teaching and learning processes, including curriculum design, pedagogy, and assessment.
3. Developing faculty and staff: TEIs can use TQM to provide professional development opportunities for faculty and staff, enhancing their skills and competencies.
4. Building partnerships and collaborations: TQM can facilitate partnerships and collaborations between TEIs, schools, and communities, promoting mutual benefit and improvement.

The CSSTE has initiated several programs and activities to promote TQM in TEIs, including:

1. Quality improvement programs: CSSTE provides financial and technical support to TEIs to implement quality improvement programs.
2. Faculty development programs: CSSTE offers faculty development programs, including training, workshops, and conferences, to enhance the skills and competencies of faculty members.
3. Curriculum reform and development: CSSTE supports curriculum reform and development initiatives in TEIs, promoting innovative and effective teaching and learning practices.
4. Partnerships and collaborations: CSSTE encourages TEIs to build partnerships and collaborations with schools, communities, and other stakeholders, promoting mutual benefit and improvement.

Conclusions

The CSSTE has made significant efforts to promote TQM in TEIs. However, there are still challenges and areas for improvement:

1. Limited resources: TEIs often face limited resources, including funding, infrastructure, and personnel, which can hinder the effective implementation of TQM.

2. Lack of awareness and commitment: Some TEIs may lack awareness and commitment to TQM principles and practices, which can limit their effectiveness.

3. Insufficient support and guidance: TEIs may require additional support and guidance to implement TQM effectively, particularly in areas such as curriculum reform and faculty development.

To address these challenges, the government and other stakeholders should provide increased funding and resources to support TQM initiatives in TEIs. There should be more awareness and commitment to TQM principles and practices among TEIs, faculty members, and other stakeholders. This would entail additional support and guidance to TEIs to implement TQM effectively, particularly in areas such as curriculum reform and faculty development.

Studies of this kind may be seen as trifling and yet much warranted. Teacher education has become a new frontier in the field of education especially in Mizoram. Slowly but surely, it has gained more and more importance as the demand for quality teachers increased after realization of the RTE Act.

The study was carried out so that more will be understood about the implementation of the teacher education scheme especially with respect to the changes in the Teacher Education Institutions. It also attempted to ascertain the quality of teacher education institutions in the state through the perception of the teacher educators as well as teacher trainees. The government at the centre and the state invested a huge amount of money and other resources so as to better the quality of education as a whole through the CSSTE for teacher education in particular.

Positive aspects of teacher education can be seen through the perception of the stakeholders as well as CSSTE and its implementation. Teacher education in Mizoram have gained grounds in bettering the quality of education on various fronts and the CSSTE have been instrumental in bringing about this positive change.

Based on the current study, it can be concluded that the CSSTE contributed positively to teacher education in particular and education in general. The relationships between teachers, teaching, and teacher education are intimately intertwined; in fact, they are nearly axiomatic. In order to guarantee that learning occurs as effectively as possible in the classroom, teacher education has become crucial and essential. It has become imperative that policymakers support and advance teacher education given the modern era's rapid expansion and development in many areas of life.

Educational Implications of the study

This study can have significant implications for teacher education policy, practice, and research, ultimately leading to improved teacher quality, learning outcomes, and education system performance. The findings of the study can have implications for policymakers as it can lead to improved policy formulation to enhance teacher education which is in fact the need of the hour as is evident from the study that policy decision needs to be made for implementation of teacher education scheme such as restructuring and reorganisation of teacher education, cadre formation and creation of posts etc.

The study also provides empirical evidence to support teacher education reforms and promotes accountability and transparency in teacher education governance thereby contributing to the sustainable development of teacher education and the education sector.

The strength and weakness uncovered through the study of Total Quality Management can be utilised for identifying effective strategies to improve teacher quality and learning outcomes and increased efficiency by streamlining processes and reducing waste in teacher education institutions. It can have an implication towards future research and development in teacher education and Total Quality Management.

The majority of these implications were directly related to strategies that policymakers can use to highlight the importance of teacher education's future. Future developments and transitions will center on how successfully teacher education transforms the teaching and learning process. It is now essential to look into the future not in isolation but ensuring that the roles of the teacher and the learner, the teacher education institution, and the curriculum evolve and converge simultaneously.

Suggestions for further research

No research is ever sufficient and final. To study and find research-based solutions of the endless issues in education is always a challenge for academicians and policy makers. Some suggestions for further studies were stated as follows:

1. Impact study: The present study is regarding the implementation of Teacher Education scheme in a particular state only and does not reflect the impact it had

for quality education. Assessing the effectiveness of the scheme in improving teacher education and student outcomes, the impact that CSSTE had in the school education, teacher education and also to those of policy makers would be a worthwhile study.

2. Comparative Study: Comparing the outcomes of teacher education institutions receiving central assistance with those that do not. A comparative study with other states would also be a meaningful study. To fully understand the extent to which CSSTE was implemented may be ascertained by studying the implementation in different states.
3. Sustainability and Scalability: Investigating the sustainability and scalability of the scheme's initiatives as well as conducting a financial analysis of expenditure and outcomes will be beneficial for stakeholders including the government.
4. Teacher Education Policy Reforms: Analyzing the scheme's influence on teacher education policy reforms and its impact on curriculum development and implementation in teacher education would be a worthwhile study for policy makers as well as academicians.
5. Impact of TQM on Teacher Quality: Examine the relationship between TQM and teacher quality, including teacher performance and student outcomes, teacher job satisfaction, motivation, and engagement.
6. Comparative Study of TQM in Teacher Education Institutions: Compare the effectiveness of TQM implementation in different teacher education institutions within and outside the state.
7. TQM and Teacher Education Curriculum: Investigate the impact of TQM on teacher education curriculum design and delivery as well as accreditation of teacher education programs.
8. TQM and Teacher Education Stakeholder Satisfaction: Examine the impact of TQM on stakeholder satisfaction, including students, teachers, parents, and community members.
9. TQM and Teacher Education Continuous Improvement: Investigate the effectiveness of TQM in driving continuous improvement in teacher education programs.
10. TQM and Teacher Education Resources: Examine the impact of TQM on resource allocation and utilization in teacher education programs.

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