

# EDUCATION SYSTEM

Dr. Sobha Jacob C.

National Council of Educational Research and Training (NCERT) function as an academic adviser to the Ministry of Human resource Development, Government of India. Quality improvement of school education and teacher educations is one of the major concerns of NCERT. During Sixties, State Institute of Education was established in various states to provide academic guidance to the states. Later, the SIEs had been changed to SCERTs which is an autonomous body under the control of state government. However in the state of Tamil Nadu, SCERT was again converted into a government organ namely Department of Teacher Education and Research (DTERT). State Council for Educational Research and Training (SCERT) in Kerala and Department of Teacher Education and Research (DTERT) in Tamil Nadu are the premier institutions in respective states for educational research and training at school level. Both these institutions assist and advise the Department of General Education of concerned state in the implementation of its policies and major programme sin the field of school education. Though SCERT is an autonomous body under the state of Kerala , DTERT is a Directorate of the Tamil Nadu state government. There are certain fundamental difference between SCERT and DTERT at its organizational and functional level. The book tried to reveal the similarities and differences of these two institutions and provide certain creative suggestions to improve the academic qualities of these institutions.

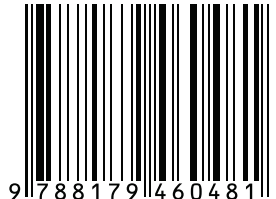
## CONTENTS

- 1: Introduction
  - 2: Review of Related Literature
  - 3: Methodology
  - 4: Analysis and Interpretation of Data
  - 5: Summary, Findings, Conclusion and Recommendations
- Appendices  
Bibliography

**Dr. Sobha Jacob**, M.Sc, M.Ed, Ph.D is Assistant Professor in State Council for Educational Research and Training (SCERT) Kerala since 1999. Now working in the area of Curriculum development, Textbook preparation, Development of Evaluation materials in-service teacher education, Pre-service teacher education etc. The main work doing in SCERT is Educational research in the area of general Education sector of Kerala State. The main contributions in Educational research are; A study on the Effectiveness of Kerala Curriculum 2013 and its Implementation; A study on the Academic Achievement of Learners at Primary Level; A Study on the Performance Level of Learners at Higher Secondary Level.

₹ 995/-

ISBN:978-81-7946-048-1



9 788179 460481

**APH PUBLISHING CORPORATION**  
4435-36/7, Ansari Road, Darya Ganj,  
New Delhi 110002 Email: aphbooks@gmail.com



EDUCATION SYSTEM

Dr. Sobha Jacob C.



# EDUCATION SYSTEM



**Dr. Sobha Jacob C.**

# **Education System**

# **Education System**

**Dr. Sobha Jacob C.**

**A.P.H. PUBLISHING CORPORATION**

4435-36/7, ANSARI ROAD, DARYA GANJ,  
NEW DELHI-110002

*Published by*

**S.B. Nangia**

**A.P.H. Publishing Corporation**

4435–36/7, Ansari Road, Darya Ganj,

New Delhi-110002

Phone: 011–23274050

e-mail: aphbooks@gmail.com

© Author

*Typeset by*

**Ideal Publishing Solutions**

C-90, J.D. Cambridge School,

West Vinod Nagar, Delhi-110092

*Printed at*

**BALAJI OFFSET**

Navin Shahdara, Delhi-110032

## ACKNOWLEDGEMENT

---

---

Let me, at the outset, bow my head before **God Almighty** under whose divine grace I have been able to complete this piece of work.

I place on record my profound gratitude to the late **Dr. B. Vijayakumar**, former State Project Director, SSA, Kerala for his valuable guidance till his sad demise. Floral tributes to the beloved guide in shaping the research work in this form.

I express my sincere gratitude to **Dr. V. Seeni Natarajan**, Professor, Department of Lifelong Learning, my guide and supervisor, under his guidance the present study has been completed. God has given me a wonderful opportunity to unleash my potential under his guidance.

I am extremely thankful to **Dr. M. R. Rajan**, Associate Professor, Department of Biology, my joint research supervisor, for providing inspiring guidance to complete my study.

I am extremely thankful to **Dr. R. Subburaman**, Professor and Head, Department of Lifelong Learning for giving me access to all the facilities in the Department for conducting the study. My thanks go to **Dr. A. Suryakanthi** former Head of the Department of Lifelong Learning for her valuable help. I also express my sincere gratitude to the members of staff for their encouragement and kind-hearted cooperation.

My heartfelt gratitude to **Dr. M. A. Jayaraju**, Professor, Faculty of English and **Dr. S. Manivel**, Associate Professor, Department of Cooperation for their valuable assistance.

I am also grateful to **Dr. Celine Pereira**, Associate Professor, School of Pedagogical Science, M.G. University, Kottayam, for her invaluable assistance rendered in this research work.

I utilize this opportunity to thank the Directors of SCERT and DTER, Directors of SSA Kerala and Tamil Nadu, Principals of DIET, Thiruvananthapuram and Kanyakumari and all the faculty members of SCERT and DTER for their cooperation throughout my work. I also

remember with gratitude the school teachers of both Kerala and Tamil Nadu for the cooperation rendered by them.

My sincere thanks are due to all my friends for their timely advice and assistance. I am greatly indebted to place on record my deep sense of gratitude to **Sidhik. T.** who was behind me in executing and bringing out this thesis in the present format.

Finally my heartfelt thanks are due to my husband **Dr. K. C. Sunny**, my children **Smilu Sunny and Alen Sunny** for their immense support, tolerance and valuable prayers which fortified me with the ability to complete this work.

**Ganghigram**

**Sobha Jacob C.**

## CONTENTS

<b>Chapter-1: INTRODUCTION</b>	<b>1</b>
1.1 Introduction	1
1.2 Perspectives on Aims of Education	2
1.3 Democracy and Education	3
1.4 Education in India	4
1.4.1 Education in Ancient India	4
1.4.2 Education during the Medieval Period	5
1.4.3 Education during the Colonial Period	5
1.5. Education under the Constitution	7
1.6 Education in Independent India	8
1.7 Legislative and Administrative Measures after Independence	9
1.7.1 University Education Commission 1948-49 (Radhakrishnan Commission)	9
1.7.2 Secondary Education Commission 1952-53 (Mudaliar Commission)	9
1.7.3 Indian Education Commission 1964-66 (Kothari Commission)	9
1.7.4 National Policy on Education 1968	10
1.7.5 National Policy on Education 1986	10
1.7.6 National Policy on Education - Review Committee	10
1.7.7 Ramamurti Review Committee 1990	10
1.7.8 Janardhana Reddy Committee / CABE Committee 1992	11
1.7.9 Yashpal Committee 1993	11
1.7.10 Right to Education Act	11

1.8	Organizational System of Education after Independence	12	1.13.13	State Institute of Educational Management and Training (SIEMAT)	32
1.8.1	System at the Central Government Level	12	1.13.14	State Institute of Educational Technology (SIET)	32
1.8.2	Central Government as Manager of Educational Institutions	13	1.13.15	Open School	33
1.8.3	System at State Level	13	1.13.16	Sarva Shiksha Abhiyan (SSA)	33
1.8.4	Local Bodies	14	1.13.17	Rashtriya Madhyamik Shiksha Abhiyan (RMSA)	34
1.9	Role of the State in Education	14	1.14	Organizational and Functional Challenges	35
1.10	Educational Administration	14	1.15	Need and Significance of the Study	35
1.11	Educational Research and Training	16	1.16	Statement of Problem	37
1.12	Institutional Mechanism for Educational Research and Training	17	1.17	Objectives of the Study	38
1.12.1	Need for Institutional Mechanism	17	1.18	Hypotheses	38
1.12.2	National Council of Educational Research and Training	18	1.19	Methodology	38
1.12.3	Role and Functions of NCERT	18	1.19.1	Population of the Study	39
1.12.4	State Level Mechanism	19	1.19.2	Sample of the Study	39
1.12.5	Evolution of State Council of Educational Research and Training (SCERT)	20	1.19.3	Tools and Techniques for the Study	40
1.13	Changing Role of the Mechanism for Educational Research and Training	24	1.20	Scope and Limitations of the Study	40
1.13.1	Curriculum Development	25	1.21	Statistics Used for the Study	41
1.13.2	Textbooks	25	1.22	Organization of the Thesis	42
1.13.3	Evaluation	25		Chapter 1-Introduction	42
1.13.4	Teacher Education	26		Chapter 2-Review of Related Literature	42
	In-service Teacher Education	27		Chapter 3-Methodology	42
1.13.5	Educational Research	28		Chapter 4-Analysis and Interpretation of Data	42
1.13.6	Population Education	28		Chapter 5-Summary, Findings, Conclusion and Recommendations	42
1.13.7	Special Education	29	<b>Chapter-2: Review of Related Literature</b>	<b>43</b>	
1.13.8	Vocational Education	30	Review of Related Literature	43	
1.13.9	Adult Education	30	2.1	Studies related to Administration	44
1.13.10	Educational Technology	31	2.2	Studies related to Organization	61
1.13.11	Organizational and Functional Issues Related to the Changing Role	31	2.3	Studies related to Planning and Management	67
1.13.12	District Institute of Education and Training (DIET)	31	2.4	Studies related to Functions	72
				Conclusion	78

<b>CHAPTER-3: Methodology</b>	<b>79</b>
3.1 Introduction	79
3.2 Methods Adopted for the Study	79
3.2.1 Survey Method	79
3.3 Population of the Study	80
3.4 Sample of the Study	80
3.5 Tools and Techniques Used for the Study	81
3.6. Development of Tools	82
3.6.1 Questionnaire	82
3.6.2 Interview Schedule	89
3.6.3 Analysis of Documents	90
3.7. Procedure of Data Collection	91
3.8 Time Schedule for Data Collection	92
3.9 Statistical Techniques Used	92
<b>Chapter-4: Analysis and Interpretation of Data</b>	<b>93</b>
4.1 Analysis of Documents of SCERT and DTERT	94
4.1.1 Evolution of SCERT and DTERT	94
4.1.2 Aims and Objectives of SCERT and DTERT	95
4.1.3 Organizational Pattern of SCERT and DTERT	97
4.1.4 Linkages of SCERT and DTERT with other Organizations	98
4.2 Analysis of the Responses to the Questionnaire for Senior Faculty of SCERT and DTERT	100
4.3 Analysis of the Responses to the Questionnaire for the Faculty of SCERT and DTERT	123
4.4 Analysis of the Responses to the Questionnaire for the Beneficiaries of SCERT and DTERT	136
4.5 Analysis of Interview with the Non-formal Education Faculty of SCERT and DTERT	165
4.6 Analysis of the Interview with the Directors of SCERT and DTERT	167
4.7 Analysis of the Interview with the State Project Directors of SSA Kerala and Tamil Nadu	172
4.8 Analysis of Interview with the Principals of DIETs	174

<b>Chapter-5: Summary, Findings, Conclusion and Recommendations</b>	<b>176</b>
5.1 Brief Resume of the Study	176
5.1.1 Methodology	177
5.1.2 Statistical Techniques Used	177
5.2 Major Findings of the Study	177
5.2.1 Findings related to Organizational Structure of SCERT and DTERT	178
5.2.2 Findings related to the Functions of SCERT and DTERT	180
5.2.3 Findings Related to the Functions Based on the Responses of the Beneficiaries of SCERT and DTERT	188
5.2.4 Findings Related to the Role and Functions of the Non-formal Education wing of SCERT and DTERT	195
5.2.5 Findings related to the Fulfilment of the Objectives of SCERT and DTERT	196
5.3 Tenability of Hypotheses	197
5.4 Conclusion	199
5.4.1 Regarding Organization	199
5.4.2 Regarding Functions	200
5.5 Recommendations	204
5.5.1 Administrative Matters	204
5.5.2 Academic Matters	204
5.6 Suggestions for further Research	206
<b>APPENDICES</b>	
<b>Appendix-I: List of Experts</b>	<b>208</b>
<b>Appendix-II: Questionnaire-I</b>	<b>209</b>
Questionnaire to the Senior Faculty Members of SCERT/DTERT	209
<b>Appendix-III: Questionnaire-II</b>	<b>220</b>
Questionnaire to the Faculty of SCERT and DTERT	220
<b>Appendix-IV: Questionnaire-III</b>	<b>223</b>
Questionnaire to Teachers	223

<b>Appendix-V: List of officials Interviewed</b>	<b>230</b>
<b>Appendix-VI: Interview Schedule to the Non-formal Education Faculty of SCERT and DTERT</b>	<b>231</b>
<b>Appendix-VII: Interview Schedule to the Directors SCERT and DTERT</b>	<b>232</b>
<b>Appendix-VIII: Interview Schedule to the State Project Directors of SSA Kerala and Tamil Nadu</b>	<b>234</b>
<b>Appendix-IX: Interview Schedule to the Principals of DIETs</b>	<b>235</b>
<b>Appendix-X: Criteria for the Analysis of Documents</b>	<b>236</b>
<b>Bibliography</b>	<b>237</b>
Books	237
Journals	243
Policies	245
Reports	245
Theses	246
Unpublished Mnuscripts	252
Websites	254

## ABBREVIATIONS

AEE0	-	Assistant Elementary Educational Officer
AEO	-	Assistant Educational Officer
AV Unit	-	Audio-Visual Unit
B.Ed	-	Bachelor of Education
BRC	-	Block Resource Centre
CACEE	-	Centre for Adult Continuing Education and Extension
CCRT	-	Centre for Cultural Resources and Training
CDE	-	Child Development Centre
CEO	-	Chief Educational Officer
CIE	-	Central Institute of Education
CIEFL	-	Central Institute of English and Foreign Languages
CIL	-	Central Institute of Language
COL	-	Commonwealth Learning
CRC	-	Cluster Resource Centre
CTE	-	College of Teacher Education
DCE	-	District Centre for English
DDE	-	Deputy Director of Education
DEO	-	District Educational Officer
DEEO	-	District Elementary Education Officer
DGE	-	Directorate of Government Examinations
DHS	-	Directorate of Health Services
DHSE	-	Directorate of Higher Secondary Education
DIET	-	District Institute for Education and Training
DPEP	-	District Primary Education Project
DPC SSA	-	District Programme Coordinator of SSA
DPI	-	Director of Public Instruction
DRC	-	District Resource Centre
DRG	-	District Resource Group
DRU	-	District Resource Unit
DSE	-	Directorate of School Education



DTERT	-	Directorate of Teacher Education Research and Training
DTHSE	-	Directorate of Technical Higher Secondary Education
DVHSE	-	Directorate of Vocational Higher Secondary Education
Edusat	-	Educational Satellite
ET	-	Educational Technology
FIP	-	Faculty Improvement Programme
HM	-	Head Master
HSS	-	Higher Secondary School
IASE	-	Institute of Advanced Studies in Education
ICSSR	-	Indian Council for Social Science Research
IT	-	Information Technology
KSACS	-	Kerala State Aids Control Society
KSLMA	-	Kerala State Literacy Mission Authority
NCERT	-	National Council of Educational Research and Training
NCTE	-	National Council of Teacher Education
NGO	-	Non Governmental Organization
NIEPA	-	National Institute of Educational Planning and Administration
NLM	-	National Literacy Mission
NRHM	-	National Rural Health Mission
NUEPA	-	National University of Educational Planning and Administration
PRC	-	Population Research Centre
RIE	-	Regional Institute of Education
RMSA	-	Rashtriya Madhyamic Siksha Abhiyan
SCERT	-	State Council of Educational Research and Training
SEEU	-	State Educational Evaluation Unit
SIE	-	State Institute of Education
SIET	-	State Institute of Educational Technology
SIEMAT	-	State Institute of Educational Management and Training
SISE	-	State Institute of Science Education
SPD	-	State Project Director
SRC	-	State Resource Centre
SRG	-	State Resource Group
SSA	-	Sarva Siksha Abhiyan
TANSACS	-	Tamil Nadu State AIDS Control Society
TTC	-	Teacher Training Course
TTI	-	Teacher Training Institute
UNFPA	-	United Nations Fund for Population Activities
UNICEF	-	United Nations International Children's Emergency Fund
UP	-	Upper Primary

## ABOUT THE BOOK

National Council of Educational Research and Training (NCERT) function as an academic adviser to the Ministry of Human resource Development, Government of India. Quality improvement of school education and teacher educations is one of the major concerns of NCERT. During Sixties, State Institute of Education was established in various states to provide academic guidance to the states. Later, the SIEs had been changed to SCERTs which is an autonomous body under the control of state government. However in the state of Tamil Nadu, SCERT was again converted into a government organ namely Department of Teacher Education and Research (DTERT). State Council for Educational Research and Training (SCERT) in Kerala and Department of Teacher Education and Research (DTERT) in Tamil Nadu are the premier institutions in respective states for educational research and training at school level. Both these institutions assist and advise the Department of General Education of concerned state in the implementation of its policies and major programme in the field of school education. Though SCERT is an autonomous body under the state of Kerala, DTERT is a Directorate of the Tamil Nadu state government. There are certain fundamental difference between SCERT and DTERT at its organizational and functional level. The book tried to reveal the similarities and differences of these two institutions and provide certain creative suggestions to improve the academic qualities of these institutions.

## ABOUT THE AUTHOR

---

**Dr. Sobha Jacob**, M.Sc, M.Ed, Ph.D is Assistant Professor in State Council for Educational Research and Training (SCERT) Kerala since 1999. Now working in the area of Curriculum development, Textbook preparation, Development of Evaluation materials in-service teacher education, Pre-service teacher education etc. The main work doing in SCERT is Educational research in the area of general Education sector of Kerala State. The main contributions in Educational research are;

- A study on the Effectiveness of Kerala Curriculum 2013 and its Implementation
- A study on the Academic Achievement of Learners at Primary Level
- A Study on the Performance Level of Learners at Higher Secondary Level

## Chapter-1

# INTRODUCTION

---

---

### 1.1 INTRODUCTION

The word *education* has its root in the Latin word '*educatum*', which means 'to lead forth' and 'bring up'. It is the pursuit of excellence for public good (Grace, 1989). It intends enablement and enlightenment. Durkheim (1972) sees education as the socialization of the younger generation since one of its fundamental goals is imparting culture from generation to generation (Blanchett, 2009). Education has this function of cultural transmission in all societies (Scherger, 2010).

Helvetius (Grossman, 1972), referring to education in 18<sup>th</sup> century France, observed that men are born ignorant, not stupid; they are made stupid by education. However, according to the modern view, education is increasingly required to prepare individuals for a changing rather than confining to static world (Collins, 1971). Malinowski (1945) rightly had in mind this feature in its rudimentary form in primitive societies when he included the rules of craftsmanship as an element in social control. Modern science and technology are founded on a general rational approach to nature and social life. The whole rationalization of the modern world is connected with the development of science (Rossi, 1965). Education has contributed to the regulation of conduct that is the early socialization of the child. The work of educational reformers such as Montessori (Standing, 1998) and Froebel (Lawrence, 1952) brought about great changes in the education of young children. Through education new generations learn the social norms and the penalties for infringing them; they are instructed also in their station and its duties within the system of social differentiation and stratification (Chafer, 2007).

Education can bring about a change in the pattern of social relationships and thereby it may cause social changes (Counts, 1930). Brown (1973) remarks that education is a process which brings about changes in the behaviour of society. Values like individualism, universalistic ethics, human

rights etc. can also be inculcated through education (Misgeld and Magendzo, 1997). Thus education can be an important means of modernization.

## 1.2 PERSPECTIVES ON AIMS OF EDUCATION

The aims of education have been categorized variously by different scholars. While Herbert Spencer believed in the ‘complete-living aim’, he advocated the moral aim (Spencer, 1911). Pestalozzi is of the view “Education is natural, harmonious and progressive development of man’s innate powers” (Gutek, 1968). Education enables us to control, give the right direction and the final sublimation of instincts. According to Socrates (Brickhouse, 2000), education is to stimulate careful reasoning and mental self-discipline which will result in continuous intellectual development and high standards of moral conduct. .

Plato ( Curren, 2006) advocated extreme methods like removing children from their mothers’ care and raising them as wards of the state, with great care being taken to differentiate children suitable to the various castes, the highest receiving the most education, so that they could act as guardians of the city and care for the less able. One of education’s primary missions for Aristotle (Davidson, 1900), perhaps its most important, was to produce good and virtuous citizens for the polis. Though Rousseau (Broome, 1963) paid his respects to Plato’s philosophy, he rejected it as impractical due to the decayed state of society. This differed from Locke’s concept of ‘tabula rasa’ in that it was an active process deriving from the child’s nature, which drove the child to learn and adapt to its surroundings (Chappell, 1992). According to Froebel (Lawrence, 1952) education is not merely preparation for life but an experience in present living that unites thought with action.

According to Spencer (1911) education is to give every individual essential knowledge for complete living. Dewey (1916) stated that, in its broadest sense, education is the means of the “social continuity of life” given the “primary inevitable facts of the birth and death of each one of the constituent members in a social group”. Education is therefore a necessity, for “the life of the group goes on.” (Stanford Encyclopedia, 2008). Steiner (1996), a philosopher and writer, created a holistic educational impulse that has become known as ‘Waldorf Education’. He emphasizes a balance of developing the intellect (or head), feeling and artistic life (or heart), and practical skills (or hands). His theory of child development, which divides education into three discrete developmental stages, predates but has close similarities to Piaget’s description of stages of development

(Ginsburg, 1987). Froebel defined education as the unfoldment of what is already enfolded in the germ. It is the process by which the child makes the internal, external (Fletcher et al., 1912).

For Swami Vivekananda, education is the manifestation of the divine profession already existing in man. This Indian perspective is further strengthened by Mahatma Gandhi. According to Mahatma Gandhi, “ Education is an all round drawing out of the best in the child and the man-body, mind and spirit.” Certain fundamental principles are intrinsic to Gandhi’s educational philosophy (1951). Gandhi adds that his system would lead to communal harmony because it would be the same for all; it would be “practical religion, the religion of self-help”. Gandhi believes that his “plan springs out of non-violence”. It has the capacity to make students “true representatives of our culture, our civilization, of the true genius of our nation”. We are not to follow Europe, Russia, or America, Gandhi says, because their systems are founded on violence and exploitation (Varkey, 1940). The right to autonomy that Gandhi’s educational plan assigns to the teacher in the context of the school’s daily curriculum is consistent with the libertarian principles that he shared with Tolstoy. Gandhi wanted to free the Indian teacher from any interference from outside, particularly government or state bureaucracy. Textbooks were mandatory so that Gandhi found that ‘the living word of the teacher has very little value’ (Gandhi, 1977). As highlighted by Kumar (1994), Gandhi believed that education is a highly moral activity.

## 1.3. DEMOCRACY AND EDUCATION

Aristotle says that men without virtue are the most unholy and savage, and suffer most from lust and gluttony (Martin, 2003). Separated from law and justice, man becomes the worst and can use the state for the worst ends. Laski says in ‘Grammar of Politics’ that equality in distribution of resources makes citizens valuable for the society without anyone grudging if someone worked more and through socially approved effort, earned an extra pound or so (Laski, 1967). A society in which one person is so poor that he is forced to sell his vote and another so rich that he can buy it, is not a democratic society. In *Brown v. Board of Education*, Earl Warren, Chief Justice, speaking for the U.S. Supreme Court pointed out that “today, education is perhaps the most important function of state”. Dewey (1916) explains the democratic dimension of formal education in the following words: “But as civilization advances, the gap between the capacities of the young and the concerns of adults widens. Learning by direct sharing

in the pursuits of grown-ups becomes increasingly difficult except in the case of the less advanced occupations.”

#### 1.4 EDUCATION IN INDIA

India is a country having a bright tradition in formal education. It started as the gurukula education in the Vedic period, gathered momentum through the prestigious universities of Nalanda and Taxila of Buddhist age, acquired a new dimension through medieval Islamic education, developed a formal administrative system in the colonial era and finally developed as a means for the full development of individual and a vehicle for social transformation through the measures adopted by the constitutional system of governance. Though the basic objective of education, namely imparting of knowledge, development of skills and inculcation of values, remained intact during this period, there were difference in terms of content, pedagogy and approach owing to the reason that drastic changes affecting the value system, style of life, pattern of behavior and level of social interaction had happened at various points of time. For making the individual and society cope with social, political and scientific developments, reform in education was essential. Since the speed of this development was very high in the last two centuries, drastic changes in all aspects of education occurred in these centuries, which are continuing even now. Though the formal mechanism for education research and training is always relevant, it is more relevant in a democratic country having a constitutional system of governance, since the welfare of the people is the most important objective of a democratic government.

The evolution of education in India during the pre-independent period is traced below.

##### 1.4.1 Education in Ancient India

In ancient India, education was religion and religion was education (Ghosh, 2001). Ancient Indian education is also to be understood as being ultimately the outcome of the Indian theory of knowledge as part of the corresponding scheme of life and values (Wijesinhe, 1987). During Vedic period the foundation of education too had been religious. Education was sought after as the means of salvation or self-realization, as it was considered as the ultimate goal of life (Aggarwal, 2004). Education was free. Its expenses were borne by the society and the king. Art and handicraft were highly respected. The teachers enjoyed the highest social status (Sharma and Sharma, 1996). They treated their students as their own children and paid attention to their development.

Brahmanic education paid attention to the child's physical and mental development (Jayapalan, 2005). The Buddhists began to establish monasteries. Initially, these monasteries provided education only to the Buddhists, but gradually they came to impart education to all classes (Mookerji, 1990). Certain prominent centres of education sprang up in this period. Among the most notable universities that developed during this period were the universities of Taxila and Nalanda. In the 6th century B.C. Buddhist education provided opportunities for education of men and women of every caste. It thus gave rise to a general desire for education among all people (Needham, 2004). Nalanda University was born of the liberal endowments created by the people and the emperor of Magadha and the neighboring emperors (Altekar and Sadashivanth, 1944).

##### 1.4.2 Education during the Medieval Period

Education during the medieval period is divided into two kinds. They are Medieval Hindu Education and Medieval Islamic Education. Medieval Hindu Education was a period when quality of education and the spread of knowledge deteriorated. On the whole, the level of knowledge was at its lowest (Chand, 2007). Though education during the Medieval Islamic period was much inferior in quality, they had great love for learning since it helped them to spread their religion (Sharma and Sharma, 1996)).

##### 1.4.3 Education during the Colonial Period

Western education made a beginning in India with the activities of the Dutch and the Portuguese. Christian missionaries began to set up educational institutions as part of their work of propagating their religion. But an organized and systematic programme came into existence only with the coming of the East India Company in the field. But, in due course, the East India Company took up the programmes of religious propagation and establishment of schools in addition to the main goal of expansion of trade with India (McEldowney, 1980).

The Company accepted, in its charter of 1813, the proposal of the Christian missionaries to take up the responsibility of educating Indians and to provide financial assistance. This period is marked by great controversies on educational policies (Adams, 1971). The main controversy during the period was whether Indians should be given English education or education in Indian languages and subjects.

Lord Macaulay, who came to India as the Law Member, gave a new dimension to education. He solved the language problem by presenting a

forceful Minute in 1835 (Macaulay, 1835). He envisaged creating, “a class of persons, Indian in blood and colour, but English in taste, in opinions, in morals, and in intellect”. The Minute was based on an idea that English education is not just superior in ‘science’, but would also inculcate superior morals, etc. that were responsible for making the English superior.

Accepting the responsibility of educating the Indians, Woods Despatch put forth the recommendation that an office of the Director of Public Instruction should be set up in each state (Sharp and Richey, 1920). The Government accepted this recommendation, since this gave it legal authority (Moore, 1965).

When Lord Rippon became the Viceroy, he appointed the first Indian Education Commission with Sir William Hunter as the Chairman. One of the important recommendations of the Hunter Commission was that emphasis should be given to women’s education (Hunter 1883).

In 1902 the then Viceroy Lord Curzon set up the Indian University Commission headed by Raleigh, one of the members of his Executive Council, and in 1917, the Government of India appointed the Calcutta University Commission under the chairmanship of Dr. Michael Sadler, the Vice Chancellor of Leeds University, England. He put forward certain important recommendations to improve higher education.

In 1929, a committee under the chairmanship of Sir Philip Hartog was set up. It suggested that a larger number of boys should be channelized towards the industrial and commercial streams from the middle level itself. They should be sent to institutions providing education in these professional courses (Mishra, 2009).

The British Indian Government invited Abbot and Wood from England, and a committee was formed to make recommendations about technical and vocational education in India. It was in consequence of the recommendations of this committee that polytechnic institutions emerged in the country (Singh, 2007). At the same time, general curricula, pertaining to professional studies, commercial subjects and agriculture were initiated in high schools.

During this period, as the part of social reformation and growth of nationalism, there was serious thinking among Indian educated elite about the education system suited to India. Mahatma Gandhi mooted the idea of basic education and advocated for free and compulsory education for all children between the age of 7 and 14 years. According to him education should be imparted in primary level in the student’s mother tongue. A free primary universal education is to be imparted to all the children in the village (Gandhi, 1951).

In 1944 the British Government appointed a committee under the chairmanship of Sir John Sargent to draw up a memorandum for the development of Indian education. This report meant for educational development in the post-war period is known also as The Sargent Plan. The report recommended that children between the ages of 6 and 14 should be given free primary education. According to the report, there should be two kinds of high schools (1) academic and (2) technical. Both should aim at developing and imparting integral education (Sharma and Sharma, 1996).

An evaluation of the educational policy and its implementation over the entire British period leads us to the conclusion that it was beneficial as well as harmful to our country at the same time. The most important merit of British education was that it brought Indians into touch with western knowledge and science.

### 1.5. EDUCATION UNDER THE CONSTITUTION

The enactment of the Constitution opened up a new channel for the development of education. The Constitution intended to create an egalitarian society having equal status and opportunity to all sections. The Preamble to the Constitution states the resolve of the nation “to constitute India into a sovereign socialist secular democratic republic and to secure to all its citizens justice, social, economic and political; liberty of thought, expression, belief, faith and worship; equality of status and opportunity; and to promote among them all fraternity assuring the dignity of the individual and the unity and integrity of Nation.”

Thus a social revolution is visualized by the Constitution (Austin, 1952). It is expected that the social revolution through constitutional means may be achieved through planned social change. The provisions of the Constitution dealing with education are incorporated in such a way as to facilitate the basic objective of social revolution.

So the Constitution should contain provisions relating to different aspects of education. Generally the provisions of the Constitution dealing with education may be classified as follows:

- (a) Provisions dealing with distribution of powers among the Union Government, State Government and Local Government
- (b) Provisions dealing with right to education of the citizens
- (c) Provisions dealing with parent’s duty to provide opportunities for education to his child

- (d) Provisions dealing with establishment and management of educational institutions
- (e) Provisions dealing with minorities
- (f) Prohibition of denying of admission on grounds only of religion, race, caste, language or any of them
- (g) Freedom as to attendance at religious instruction or religious worship in certain educational institutions
- (h) Provisions dealing with Scheduled Castes, Scheduled Tribes and Backward Classes.

### 1.6 EDUCATION IN INDEPENDENT INDIA

The history of education in India took a significant turn after independence. Education was given an important priority by the Government of India so as to implement the mandate given by the Constitution. The true aim of education is to prepare a person to play his part well as an enlightened member of society by imparting training to the head, hand and heart. As the system of education under the British rule was quite unsuited to the needs of India, the leaders of our country thought it necessary to introduce changes in the system of education when India achieved her independence. During the last sixty four years of the post-independence period, many attempts have been made to solve the manifold problems of education and to effect changes in the system. It is a huge and complex problem.

The Kothari Commission pointed out the changing role of education in the following words :

It becomes evident that the present system of education, designed to meet the needs of an imperial administration within the limitations set by a feudal and traditional society, will need radical changes if it is to meet the purposes of a modern democratic and socialistic society – changes in objectives, in content, in teaching methods, in programmes, in the size and composition of the student body, in the selection and professional preparation of teachers, and in organization. In fact, what is needed is a revolution in education which in turn will set in motion the much desired social, economic and cultural revolution. The report identified that the major programmes which can bring about the educational revolution has three main aspects:

Internal transformation so as to relate it to the life, needs and aspirations of the nation;

Qualitative improvement so that the standards achieved are adequate, keep continually rising and, at least in a few sectors, become internationally comparable; and

Expansion of educational facilities broadly on the basis of man-power needs and with an accent on equalization of educational opportunities.

### 1.7 LEGISLATIVE AND ADMINISTRATIVE MEASURES AFTER INDEPENDENCE

In the post independence era, several commissions have been appointed, new policy declarations have been made and numerous legislative and administrative initiatives have been taken in India. Finally the Right to Education Act 2009 has been enacted. A brief account of these developments is given below.

#### 1.7.1 University Education Commission 1948-49 (Radhakrishnan Commission)

After independence, in 1948, the Government appointed the University Education Commission under the chairmanship of the eminent scholar and philosopher Dr.S.Radhakrishnan. It made recommendations helpful to harmonize oriental and occidental cultures. The Commission boldly highlighted some of the serious defects of the university education in India.

#### 1.7.2 Secondary Education Commission 1952-53 (Mudaliar Commission)

In September 1952, the Government of India appointed the Secondary Education Commission under the chairmanship of A. Lakshmana Swami Mudaliar, the then Vice-chancellor of Madras University. The commission recommended the three language formula. Thus Hindi and English were recommended as compulsory subjects of study at the secondary stage. The Commission boldly condemned bookish knowledge and emphasized the importance of development of leadership qualities and formation of character to cater to the needs of democracy.

#### 1.7.3 Indian Education Commission 1964-66 (Kothari Commission)

In 1964, the Government of India appointed the Indian Education Commission under the chairmanship of Dr. D.S. Kothari, the then Chairman of the University Grants Commission. The Kothari Commission report was a masterly piece of work on all aspects of Indian education. The Commission presented a comprehensive study of educational problems in the context of the national needs and aspirations with a realistic approach towards the

linking of education to the socio - economic, cultural and spiritual aspects of Indian life. The Commission recommended reasonable and respectable scales of pay to all categories of teachers subject to periodical revision.

#### 1.7.4 National Policy on Education 1968

As a significant step in the history of education after independence, the Government of India announced the National Policy on Education in 1968. The Policy stressed the need for a radical reconstruction of the education system in the country. As a result of the implementation of this Policy, more than 90% of the rural population in the country have schooling facility within a radius of 1 kilometer. The country accepted a common structure of education and most of the states implemented the 10+2+3 pattern.

#### 1.7.5 National Policy on Education 1986

The National Policy on Education 1968 envisaged that the Government of India should review, once in every five years, the progress made and recommend guidelines for future development. However, a review could not take place till 1985. In 1985, it was decided to review the implementation of the 1968 Policy and to formulate a new education policy. Accordingly a status paper "*Challenge of Education - a policy perspective*" was published by the Government of India. Finally a new National Policy on Education (NPE) was formulated and got approved by the Parliament in May 1986. A Programme of Action (POA) was also chalked out for the implementation of the new Policy.

#### 1.7.6 National Policy on Education - Review Committee

The implementation of the National Policy on Education 1986 was evaluated by two committees, namely the Ramamurti Committee (1990) and the Janardhana Reddy Committee (1992). As a result of the recommendations of these two Committees, slight modifications were made in the NPE in 1992.

#### 1.7.7 Ramamurti Review Committee 1990

The National Policy on Education, 1986 (NPE), needed to be reviewed to evolve a framework which would enable the country to move towards its perspective of education. The Government, therefore, decided to set up the NPE Review Committee. That committee for Review is popularly known as Ramamurti Review Committee after the name Acharya Ramamurti, the chairman of the committee. The Committee was appointed on May 1990 and the report was tabled in the Parliament on January 9, 1991.

#### 1.7.8 Janardhana Reddy Committee / CABE Committee 1992

The Central Advisory Board of Education (CABE), in its meeting in 8-9 March, 1991 examined the procedure to be adopted for consideration of the report of the Ramamurti Review Committee and decided that a CABE committee be constituted to consider the recommendations of the Ramamurti Committee. The CABE committee was appointed under the chairmanship of Sri. Janardhana Reddy on 31 st July, 1991 to review the implementation of the various parameters of NPE taking into consideration the report of the Ramamurti Review Committee.

#### 1.7.9 Yashpal Committee 1993

From time to time a great concern regarding academic burden on students and unsatisfactory quality of learning has been voiced in our country. With a view to examining this problem, the Ministry of Human Resource Development, Government of India, appointed a National Advisory Committee in March 1992. The committee was headed by Yashpal. The committee gave its recommendations in July 1993. The major term of reference of the committee was to advise on the ways and means to reduce the load on school children at all levels. The report of the committee is entitled "Learning without Burden".

#### 1.7.10 Right to Education Act

The enactment of Right of Children to Free and Compulsory Education Act or Right to Education Act (RTE) was a milestone in the history of education in India. The Act, passed by the Indian parliament on 4 August 2009, describes the modalities of the provision of free and compulsory education for children between 6 and 14 enshrined in Article 21A of the Constitution. India became one of 135 countries to make education a fundamental right of every child when the Act came into force on 1 April 2010. According to the provisions of the Act every child in the age group of 6-14 years will be provided 8 years of elementary education in an age appropriate classroom in the vicinity of his/her neighbourhood. The Act insists that any cost that prevents a child from accessing school will be borne by the State which shall have the responsibility of enrolling the child as well as ensuring attendance and completion of 8 years of schooling. No child shall be denied admission for want of documents and no child shall be turned away if the admission cycle in the school is over and no child shall be asked to take an admission test. Children with disabilities will also be educated in the mainstream schools. In addition all private schools shall be required to enroll children from weaker sections and



disadvantaged communities in their incoming class to the extent of 25% of their enrolment, by simple random selection.

## **1.8 ORGANIZATIONAL SYSTEM OF EDUCATION AFTER INDEPENDENCE**

In the early stages of education in India issues of educational administration did not arise since the systems like gurkula education was not under the control of any central agency. This position had been substantially changed in the colonial period since during that period formal education had become an organized activity done on the basis of a centralized policy. For addressing basic policy issues, several committees and commissions were appointed during this period and an administrative system was evolved for developing the education system in tune with the policies framed from time to time. Through the enactment of the Constitution a paradigm shift occurred and for giving new content to education in tune with the mandate of the Constitution, several legislative and administrative measures have been taken. At the level of administration restructuring had become essential since a federal system of governance was introduced after independence. Since both the central and state governments had a role in education new administrative systems have been established both at the central and at the state levels. It is the duty of the administrative system to implement the policies framed from time to time.

### **1.8.1 System at the Central Government Level**

At the central level, the Department of Education in the Ministry of Human Resource Development is responsible for all matters connected with education, including overall planning of programmes and providing guidance for their implementation. The creation of the Ministry of Human Resource Development in September 1985 is a landmark in the organizational history of the union government; it marks the institutionalization of the seminal idea that the people of the country should be looked upon as the most valuable resource, that development should go beyond economic growth with its calculus of Gross National Product (GNP), investment and growth rate, and that, instead, development should aim at integrated development of the citizens, beginning with childhood and going right through life and drawing upon all factors having a bearing on the condition of the masses, including science and technology, culture, education, arts and crafts, sports, humanities and human values. The main objective of the Ministry of Human Resource Development is to bring about a coordinated and integrated approach in regard to programmes affecting human resource development.

### **1.8.2 Central Government as Manager of Educational Institutions**

The central government has set up specialist institutions for encouraging education in the country. The Kendriya Vidyalaya Sangathan (Central Schools organisation), set up in 1965, runs a chain of 771 schools in the country with the aim of providing educational facilities to children of transferable central government employees. The Navodaya Vidhyalaya Samiti (Navodaya Schools Society), set up in 1987, has the mandate of setting up in each district a pre-setting school to provide good quality education to talented children from the rural areas. So far, 280 Navodaya Vidyaayas have been set up in 280 districts. The Central Board of Secondary Education (CBSE) affiliates institutions at the secondary and senior secondary level from all over the country for the purpose of examination and prescribes the courses and syllabi for the schools affiliated to it such as the central schools and Navodaya schools.

### **1.8.3 System at State Level**

Education has been primarily a responsibility of state governments since 98% of the personnel engaged in education are under their control and 90% of the total expenditure on education from public revenues passes through their budgets.

Each State Government has its own machinery for planning and administration of education in the form of Department of Education. The Department of Education is directly controlled by a Minister of Education. The Department of Education at the state level performs three major functions concerning all levels of education, viz. regulatory, operational and directive. These are performed through three agencies such as the Secretariat, Directorate and Inspectorate.

The Secretariat performs the functions of policy-making and co-ordination, the Directorate performs the functions of direction, regulation and operation. Thus, the Directorate is an executive body which is supported by the Inspectorate which performs supervisory functions.

The Minister of Education is responsible for making educational policies. He is assisted by the Secretary of the Education Department. The Directorate of Education implements the general policy of the government in power. It keeps the government informed about conditions prevailing in different branches of education. The highest officer in the Directorate of Education is the Director of Public Education, although there are two Directors, one for collegiate education and the other for school education.

#### 1.8.4. Local Bodies

In several states, schools are directly managed by the state governments, while in many others, where the Panchayati Raj system has taken roots, schools, particularly those at the lower directorates, are managed by local bodies to whom the state governments provide resources through grants-in-aid. After the introduction of Panchayati Raj system local bodies are playing a more creative role in education especially in strengthening infrastructure, spreading literacy and providing adult education.

#### 1.9. ROLE OF THE STATE IN EDUCATION

In a democratic country, the state plays a pivotal role in education. It is often argued that education is a public good, and that this implies a particular role for government. Economists define a public good as satisfying up to three conditions: (1) indivisibility, (2) non rivalry, and (3) non excludability. Though the public sector plays a role in education it has certain limitations. Philosopher Brighouse (2006), sociologists such as Ball (2008), Mannheim (1930) and the journalist Molnar (2002) are unsympathetic to an increasing role for the private sector. Brighouse, who is affiliated with both the American and the British reform movements, presents philosophical arguments against extending educational choice, particularly stressing how they will promote inequity.

An alternative perspective is developed by the economic historian Edwin G. West's seminal work on education and the State (West, 1994), followed by the work of Coulson (1999) and Tooley (2002). West suggests that before the government got involved in education in England and Wales and the United States, there was widespread private provision of education, which was crowded out by the intervening state. Coulson takes up the historical case in ancient Greece (among other places), and providing detailed economic and conceptual arguments to support the case for markets in education, he challenges the idea that public education can promote social cohesion and equality of opportunity. From these considerations, it is clear that state intervention in education is necessary for ensuring effectiveness and efficiency. One of the major areas which demands state intervention is Educational Administration.

#### 1.10 EDUCATIONAL ADMINISTRATION

Etymologically, the word *administration* is derived from the Latin word '*minister*', which implies service i.e., work dedicated to the benefit of others. Generally educational administration includes most of the general

administrative functions such as appraisal of the organizational purposes and co-ordination of all the forces-staffing, training, public relations, community service, raising funds for institutions, maintenance of accounts and a score of other things to achieve the objectives. On this account it may be said that educational administration very well fits into the pattern of administration in general.

Despite the common elements, there are differences at least in degree between the administrative processes related to various social organizations and educational institutions. Since education is a "non-profit making enterprise and service oriented, peculiarities of educational administration arise from the objectives of education in our society. Education is closely linked to life. It needs to be transferred into a powerful instrument of social change. On the quality and number of persons coming out of our schools and colleges will depend our success in the great enterprise of our national reconstruction; whose principal objective is to raise the standard of living of our people" (Indian Education Commission, 1964-66).

Education deals with people directly and intimately. Since most intimate relationship the school/college has with children and youth, school/college is confronted with the emotional attachment of parents to their children and these attachments are much stronger than those which most parents have for other public or private services (Graff and Street, 1957).

Another special feature of the educational enterprise is the nature of the learning process. Learning is a complicated affair. It comes more from informal situations than from the classroom lessons. Evaluation of results in education is another area which poses special problems to educational administrators. In business, one can use sales of production or the profits as evaluative measures. The "purpose of all education at all levels varies from literacy to critical thinking, intellectual leisure and facilitation of social mobility." Educational administration is different from other types of administrations in one more way, that is staffing. The teaching staff of a college is more or less equally qualified. Gatzels and Cuba (1970) have pointed out that professional trained people, in contrast to day labourers or skilled people or production workers, are more inclined towards 'idiographic' than 'homothetic' behaviour.

Lastly the educational administrator in an academic institution has to perform two major functions. Firstly, he is principal/headmaster of the college/school and secondly, he needs to continuously reshape this organization.

In a democratic country it is the duty of the state to ensure effective administration at all levels since education has been recognized as a basic

human right by the United Nations. Educational research and training is the major component of educational administration which demands state intervention.

### 1.11 EDUCATIONAL RESEARCH AND TRAINING

Research is best conceived as the process of arriving at dependable solutions to problems through the planned and systematic collection, analysis, and interpretation of data. It is the most important tool for advancing knowledge, for promoting progress, and for enabling man to relate more effectively to his environment, to accomplish his purposes and to resolve his conflicts. (Mouly, 1963). This view was strengthened by Cohen et al. (2007)

As with most attempts at a watertight definition, those striving to define educational research usually find it much easier to recognize than to define. One of the most widely quoted versions is Stenhouse's (1975) view of research as 'systematic enquiry made public'. Bassey (1991) elaborates on this by defining research as 'systematic, critical and self-critical inquiry which aims to contribute to the advancement of knowledge'.

Gay (2005) defined educational research as the formal systematic application of the scientific methods to the study of educational problems. Nisbet and Entwistle (1970) had earlier commented that educational research should be restricted to 'areas which involve quantitative or scientific methods of investigation'. In the same textbook they argued that the key to educational research is to 'design a situation which will produce relevant evidence to prove or disprove a hypothesis.'

A later definition by Ary et al. (2002) follows similar lines by saying that: 'When the scientific method is applied to the study of educational problems, educational research is the result.'

It is interesting to note Watson's (2001) comment that in education we would do well to stop mimicking the physical sciences. Educational Research is ultimately concerned with people.

Stenhouse (1984) defined educational research as a systematic activity that is directed towards providing knowledge, or adding to the understanding of existing knowledge which is of relevance for improving the effectiveness of education. Since it is the duty of the state to ensure effectiveness of education, the role of the state in educational research is crucial.

The role of the state is substantial in educational training especially in in-service training. According to Allen (1940) in-service education is thus a programme of activities aiming at the continuing growth of teachers

and educational personnel in service. Cane (1969) took the view that in-service teacher education is all those activities and courses which aim at enhancing and strengthening the professional knowledge, interest and skills of serving teachers.

Kothari Commission Report (1966) pointed out that "The need of in-service education is most urgent in the teaching profession because of the rapid advance in all fields of knowledge and continuing evolution of pedagogical theory and practice".

Greene (1971) describes a multitude of forces, operating now, requiring increased attention to the in-service education of teachers in a school. There has been a rapid increase in reinterpretation of knowledge, making obsolete much of what teachers were taught during their training period. So educational research and training includes following aspects.

1. Research on organizational and academic aspects of education
2. Training of teachers and educational administrators
3. Preparation of curriculum syllabus and textbooks
4. Educational reforms

### 1.12 INSTITUTIONAL MECHANISM FOR EDUCATIONAL RESEARCH AND TRAINING

#### 1.12.1 Need for Institutional Mechanism

In the pre-independent era, education was the monopoly of elite class. During the period of freedom struggle itself there was a movement for ensuring education for all. The need for universalization of primary education in India was pointed out a century ago by Sri Dadabhai Naoroji. Later, during 1912-14, Sri Gopal Krishna Gokhale took up the cause. His efforts were supported by Sri R. V. Parulekar. The Gokhale--Parulekar Model of primary education was limited to the attainment of universal literacy through four years of compulsory schooling. After independence education has been considered as a basic human right. So it is the duty of the central and state governments to take appropriate measures for the realization of this right. So the post-independence era witnessed large scale expansion of education sector through the establishment of thousands of schools, appointment of lakhs of teachers and establishment of new cadres of educational administrators. For the smooth functioning of this system, proper planning, effective implementation of various schemes in tune with policies formulated from time to time had become essential. So effective administration and proper planning is essential. More over

an academic temper should be maintained at all levels of education. A mechanism of educational research and training can address all these issues. The establishment of the National Council for Educational Research and Training (NCERT) was a right step in this regard.

### 1.12.2 National Council of Educational Research and Training

The National Council of Educational Research and Training, popularly known as NCERT, was established on 1<sup>st</sup> September, 1961 as an autonomous organization under the Societies Registration Act (1860). On its establishment, it took over the Central Institute of Education (1947), the Central Bureau of Textbooks Research, (1954), the Central Bureau of Educational and Vocational Guidance (1954), the All – India Council for Secondary Education (1955), the Directorate of Extension Programmes for Secondary Education (1955, 1959), the National Institute of Basic Education (1959), the National Fundamental Education Centre (1956) and the National Institute of Audio – Visual Education (1959). All these organizations have been set up by the Government of India with a view to providing facilities for the advancement of school education. After taking over all the organizations mentioned, the Council recognized its work so that it could function in an effective manner.

### 1.12.3 Role and Functions of NCERT

The NCERT functions as an academic adviser to the Ministry of Human Resource Development, Government of India. The main objectives of the NCERT are to assist and advise the Minister of Human Resource Development in implementing policies and major programmes in the field of education, particularly school education.

In the formulation and implementation of policies and programmes in school education and teacher's education, the Ministry draws upon the expertise of the NCERT to a considerable extent. The Council is fully financed by the Government of India.

Qualitative improvement of school education and teacher education is one of the major concerns of the NCERT. As part of its effort to improve the quality of education, the Council:

- conducts, aids, promotes and coordinates researches in all branches of school education;
- organises pre-service and in- service training of teachers, mainly at advanced level;

- organises extension services for institutions, organisations and agencies' engaged in educational reconstruction;
- develops and experiments with improved educational techniques, practices and innovations;
- collects, compiles, process and disseminates educational information;
- assists the states and state level institutions, organisations and agencies in developing and implementing programmes for qualitative improvement of school education and teacher education ;
- collaborates with international organisations like UNESCO, UNICEF, etc. and with national level educational institutions of other countries;
- extends facilities for training and study to educational personnel from other countries; and
- serves as the academic secretariat of the National Council for Teacher Education (NCTE), the National Development Group (NDG) for the Asia and the Pacific Programme of Educational Innovation for Development (APEID), UNESCO, Bangkok.

### 1.12.4 State Level Mechanism

Every state has a number of advisory and/or statutory bodies for education in charge of special functions such as primary education, adult and non-formal education, teacher education, textbooks etc. The conduct and control of secondary school course and higher secondary course examinations is done by the board of secondary education under the Directorate of Government Examinations. The Government shares its powers with, or delegates some of them to universities regarding higher education; and to local boards regarding elementary education and instruction through the mother tongue. The state level organizational structure and administrative set-up varies from state to state. Generally there are two structures, the mechanism for coordination of multiple organization operating in the field of education and the mechanism for convergence of educational services and other related services like child care, nutrition and health. At the state level, the organizations attached to the state departments/Directorates of Education fall into three categories, viz., educational institutions, resource organizations and affiliating boards.

In every state, State Institute of Education (SIE) was established for performing three functions, viz. research, publication and pre-service as well as in-service education of teacher educators and educational administrators. Later in many states this institution was converted to State Councils of Educational Research and Training (SCERT). It is corresponding to

the national level resource organizations like the NCERT and it was an innovation that came about after the National Policy of Education 1986.

### 1.12.5 Evolution of State Council of Educational Research and Training (SCERT)

During the sixties, State Institutes of Education (SIEs) were established in various states to play an important role in the academic management of states education system. Its major functions include:

- Improvement in quality of education and teacher training at the elementary stage
- Improvement in the system of inspection and supervision
- Conducting research and innovations in elementary education
- Publication of instructional material and
- Coordination between the state and NCERT

The scope of work of SIEs included in-service training of elementary school teachers, teacher education and supervision, reviewing and revising school curriculum and syllabus, providing extension services, improvement of science and education, population education, preparation and distribution of Audio-Visual aids and publication of learning material for elementary schools.

Subsequently, in course of time, other institutes/agencies were also set up in some states to provide academic support to the school education in areas of growing importance like science education, educational technology, English language teaching, etc. and specific areas of concern like examination reform, evaluation, educational and vocational guidance, etc.

As the number of institutions meant for providing academic support to the school system increased, need for coordination among them arose. The then Ministry of Education and Social Welfare recommended in 1978 that all such existing institutions be merged into a single organization to be called the State Council of Educational Research and Training (SCERT). Like the SIE, the SCERT was also primarily intended to pay special attention to universalization of primary education though it also concerned itself with other stages of school education.

At present almost all the states have either converted SIEs into SCERTs or have set up SCERTs. However, SIEs continue to exist in some states like Arunachal Pradesh, Jammu and Kashmir and Union Territories of Chandigarh and Andaman Nicobar Islands. By and large, the SCERTs started getting established from 1979 onwards, though a few like the one in Andhra

Pradesh had been established much earlier. At present, 25 of the 28 States have SCERTs while the remaining 3 (viz. Jammu and Kashmir, Arunachal Pradesh and Sikkim ) still have SIEs. Jammu and Kashmir has two SIEs. One each from Jammu and Kashmir regions. In five States (viz. Gujarat, Maharashtra, Meghalaya, Karnataka and Tamil Nadu) the nomenclature is slightly different. In Gujarat it is Gujarat Council of Educational Research and Training (GCERT) and in Maharashtra it is Maharashtra Council of Educational Research and Training (MCERT), while Meghalaya it is called Directorate of Educational Research and Training (DERT). Karnataka has a Department of State Educational Research and Training (DSERT). In Tamil Nadu, it is a Directorate ie. Directorate of Teacher Education Research and Training (DTER). Of the 7 Union Territories, Delhi has SCERT while Chandigarh and Andaman and Nicobar Islands have SIEs. The remaining 4 Union Territories viz. Pondicherry, Daman and Diu, Dadra and Nagar Haveli and Lakshadweep have neither SCERT nor SIE. All these institutions are directly under the control of state governments.

The staff composition of SCERT and SIE differ from state to state depending upon its functions. In some bigger states, the smaller academic units and cells have been merged into SCERT. However in Maharashtra and Madhya Pradesh, SCERT is an umbrella institution. It exercises academic control, coordinates and guides the state level institutions like SIET, SISE, SIE, SEEU, AV units and DIETs. In Orissa, English Language Teaching Institute and State Institute of Educational Technology (SIET) function independent of SCERT. In Delhi and Kerala, SCERT is an autonomous body financed by the respective state governments.

Status of the mechanism for educational research and training presently working in each state and the brief history of it is given in Table 1.1.

**Table 1.1: Brief History of SCERTs/ SIEs in the Country**

State	Status	Brief History
Andhra Pradesh	SCERT	Established in 1967 by amalgamating SIE, State Bureau of Education and Vocational guidance, State Science Education Unit and State Evaluation Unit.
Arunachal Pradesh	SIE	Established in 1982 as the part of government department.
Assam	SCERT	Set up in 1985 as a state level counterpart of NCERT. At present the constituent units of SCERT like SIE, SISE and ET cell has been merged with SCERT

State	Status	Brief History
Bihar	SCERT	Established in 1981 by amalgamating the State Institute of Education, the State Institute of Science and the State institute of English and Audio- Visual Education.
Chhattisgarh	SCERT	Established in 2001 as the part of Government Department.
Goa	SCERT	Established in 2010 as an academic wing of the Directorate of Education.
Gujarat	GCERT	Before 1988, there was State Institute of Education. It was later upgraded as SCERT in 1988. The upgraded SCERT now named as Gujarat Council of Educational Research and Training (GCERT).
Haryana	SCERT	Established in 1979. It was the conglomeration of State Institute of Education and State Institute of Science.
Himachal Pradesh	SCERT	SIE was converted into SCERT in 1984 on the pattern of NCERT.
Jammu and Kashmir	SIE	Established in 1973. There are two State Institutes of Education at Srinagar & Jammu.
Jharkhand	SCERT	Established in 2002 as the part of General Education Department.
Karnataka	DSERT	Established in 1975 by merging State Institute of Education, State Institute of Science, State Educational Evaluation Unit and Education and Vocational Guidance Bureau. Now it is named as Department of State Educational Research and Training (DSERT).
Kerala	SCERT	Established in 1994, converting the State Institute of Education, which functioned as part of the Department of General Education.
Madhya Pradesh	SCERT	Established in 1982, converting the State Institute of Education
Maharashtra	MCERT	Established in 1984, converting the State Institute of Education.
Manipur	SCERT	Established in 1989, converting the State Institute of Education.

State	Status	Brief History
Meghalaya	DERT	Established in 1997. The Directorate of Public Instruction was trifurcated and SCERT became a fully fledged Directorate of Educational Research and Training (DERT) with its own Director.
Mizoram	SCERT	Set up in 1980 as an academic wing of Directorate of school education.
Nagaland	SCERT	Set up in 1980 as the part of Educational Quality Improvement Programme.
Orissa	SCERT	Set up in 1979. The State Institution of Education has been renamed as SCERT as an apex Government Organization at state level.
Punjab	SCERT	Established in 1981 as a nodal agency to bring quality improvement in school education.
Rajasthan	SCERT	Established in 1985, converting the State Institute of Education.
Sikkim	SIE	SIE was established in 1978 and functioning under Human Resource Development Department.
Tamil Nadu	DTERT	The SIE was upgraded as SCERT in 1970. In 1990, the Government of Tamil Nadu created the Directorate of Teacher Education Research and Training. Now SCERT is renamed as Directorate of Teacher Education Research and Training (DTERT).
Tripura	SCERT	Established in 1996 by amalgamating SIE and three other organizations of the State Education Department namely, the Educational publication Unit, the tribal Language cell and the Bureau of Educational and vocational Guidance.
Uttaranchal	SCERT	Established in 2002 as an apex body in school education.
Uttar Pradesh	SCERT	Established in 1981 as an apex Government Organization at the state level.
West Bengal	SCERT	Established in 1980 by amalgamating the institutions and units working independently prior to the formation of SCERT and brought under single umbrella.

The above table shows that State Institutions of Education have been established in different states as a mechanism for educational research

and training. These institutions were directly under the control of state governments. Subsequently in most of the states, these institutions were converted to SCERT, which is an autonomous body under the control of state governments. However in the state of Tamil Nadu, SCERT was again converted to a government organ namely Directorate of Teacher Education Research and Training (DTERT). It promotes co-ordination and linkages amongst various institutes involved in Teacher Education and Training, facilitates and promotes the development of professional skills of various stakeholders of education and academic support to other agencies in organizing training programmes for teachers and trainers. It also organizes evaluation programmes and undertakes research activities in the field of teacher training and quality elementary education.

### 1.13 CHANGING ROLE OF THE MECHANISM FOR EDUCATIONAL RESEARCH AND TRAINING

In the post independence era a dynamic role has been assigned to institutional mechanism for educational research and training owing to two reasons. Firstly the basic aim of education has been reformulated in tune with the basic objective of Constitution. The development in science and technology, especially in the area of information technology, had assigned a new role to education in the form of human resource development.

The need for strengthening the mechanism for educational research and training at State level in the form of SCERT has been identified by Kothari Commission (1966) in the following words.

“There were solid reasons for establishing comprehensive State Institutes of Education as replica of the National Council of Educational Research and Training recently established at the Centre. Each of the different organizations set up at the State level is small and not very viable. Consequently, they are often ineffective, and the coordination of the programme of a large number of such small and different organizations is difficult. This will be overcome if they can be integrated with the State Institute of Education. Similar developments took place at the Centre during the first three plans. A beginning was made with a large number of separate institutions established for small specific purposes. As these did not prove to be effective enough, they were combined under a single organization which has been designated as the National Council of Educational Research and Training. This has been a progressive step and has yielded good results. A time has now come to take a similar step at the State level also”.

According to the Commission the following sections or programmes will have to be developed in the academic wing of the Education Department, preferably in the State Institute of Education but, if necessary, outside it:

- In-service Education of Departmental Officers
- Improvement of Teacher Education
- Curricula, Textbooks, Guidance and Evaluation
- Research and Evaluation of Programmes
- Publications.

The post Kothari Commission era assigned more duties to NCERT and SCERTs as institutions for educational Research and training. The nature of these function are given below.

#### 1.13.1 Curriculum Development

Curriculum Development is an important aspect of education since the organization of schooling and further education has long been associated with the idea of a curriculum. Kerr defines curriculum as, ‘All the learning which is planned and guided by the school, whether it is carried on in groups or individually, inside or outside the school. (Kelly 1989). The primary focus of a curriculum is on what is to be taught and when, leaving to the teaching profession decisions as to how this should be done.

#### 1.13.2. Textbooks

The ancient Greeks wrote *texts* intended for education. The modern textbook has its roots in the standardization made possible by the printing press. Early textbooks were used by tutors and teachers, who used the books as instructional aids (eg. alphabet books), as well as individuals who taught themselves. The revolution for books came with the 15<sup>th</sup> century invention of printing with changeable type.

Technological advances change the way people interact with textbooks. Online and digital materials are making it increasingly easy for students to access materials other than the traditional print textbook. Though students now have access to electronic and PDF books, online tutoring systems and video lectures, the text books have its own relevance (Ryes and Williams, 2003) .

#### 1.13.3. Evaluation

Evaluation involves assessing the strengths and weaknesses of programmes, policies, personnel, products, and organizations to improve their effectiveness. Evaluation is the systematic collection and analysis of data needed to make decisions, a process in which most well-run

programmes engage from the outset. Rossi and Freeman (2003) define evaluation as “the systematic application of social research procedures for assessing the conceptualization, design, implementation, and utility of programmes.” Process Evaluations describe and assess programme materials and activities. Examination of materials is likely to occur while programmes are being developed, as a check on the appropriateness of the approach and procedures that will be used in the programme.

#### **1.13.4. Teacher Education**

The concept of education has been rapidly changing these days. As a result, the role of the teacher is also changing (Ball and Tyson, 2011). The two main roles that a teacher has to play are that of a theorist and that of a practitioner. As a theorist he has to play the role of an educational philosopher, an educational psychologist, and educational sociologist. A knowledge of pedagogical and theoretical foundations enables him to play these roles effectively. As a practitioner, he has to play the role of an instructor, a director, a motivator, an adviser and so on. So teachers should try to continuously strengthen their professional competency so that they can serve pupils to maximum extent possible. The different levels of teacher education existing in our educational system is listed below.

#### **Pre-primary Education**

It has now been clearly recognized that the nursery or infants school has an important part to play in every school system (Kaul, 2002). The concept of pre-primary education is founded on the idea that the infants may be brought within the frame work of formal education. Educationally the nursery school aims at providing a carefully controlled environment which should cater in the healthiest and wisest manner possible for the mental, physical and social needs of the growing child. If it is conceded that at any stage of development the influence of environment is of importance, then it stands to reason that in the very early years of childhood the provision of a good environment is of paramount importance. Where the home cannot provide this, it is the business of the State to intervene.

The preparation of syllabus and curriculum for pre-primary education and the training of pre-primary teachers are done by SCERTs and similar institutions at the state level.

#### **Pre- Service Teacher Education**

Pre-service teacher education is an instruction which takes place before a person begins a job or task. The advantage of this process is that there

are no immediate real-life situations for trainees to practice the skills they learned (Crawford 1993). According to the Curriculum Framework for Quality Teacher Education of National Council of Teacher Education the general objectives of teacher education derived from the contexts, concerns and issues of education, teacher education and the perceived profile of the teacher, could include the following:

- to promote capabilities for inculcating national values and goals as enshrined in the Constitution of India.
- to enable teachers to act as agents of modernisation and social change.
- to sensitize teachers towards the promotion of social cohesion, international understanding and protection of human rights and rights of the child.
- to transform student-teachers into competent and committed professionals willing to perform the identified tasks.
- to develop competencies and skills needed for becoming an effective teacher.
- to sensitize teachers and teacher educators about emerging issues, such as environment, ecology, population, gender equality, legal literacy, etc.
- to empower teachers to cultivate rational thinking and scientific temper among students.
- to develop critical awareness about the social realities.
- to develop managerial and organisational skills.

Though the teacher training colleges and institutes are providing teacher training, the NCERT and its state counterparts are also concentrating on pre- service training.

#### **In-service Teacher Education**

In-service teacher education is an important aspect of teacher education. It means education needed to become a better teacher, which is received while in service. It includes all the programmes including refresher courses organized by institutions, tours, visits etc. According to Oliver (1981), “The development of a teacher does not cease when he leaves the training college. He now begins to learn from different kinds of experiences”. The National Curriculum Framework for School Education-2000 (NCFSE-2000) envisages: “the teacher education programme is one of the most effective and comprehensive instruments of quality improvement in school education. Perspectives of teacher education emerge from the objective of school



education which reflect concerns fulfilment of individual's potential in harmony with collective human aspirations".

The teaching profession is not a static profession and as such, teachers need to continually develop. This development can only come from within an individual – teachers cannot be forced to develop, but they can be exposed to development opportunities (Duckers, 1974). In-service programmes are organized to realize three objectives- awareness, content up-gradation and fine-tuning of teaching skills. In-service education is mostly provided through face to face modality. From time to time, the NCERT and their State counterparts are providing training to school teachers either directly or through other agencies like DIET.

### 1.13.5 Educational Research

Educational research in India has grown over a period of about six decades since the first thesis in education was accepted by Bombay University. It has undergone drastic changes during the last four decades.. However, it was soon realized that these institutions functioned more or less in isolation. Though there was a need to look at education in a holistic way, it was being examined in fragments (Gall et al., 2006). The need was also felt to look at the three major dimensions of education, viz. research, training and extension, in an integrated way. As a result of this thinking, the National Council of Educational Research and Training (NCERT) was established on 1 September, 1961 as an autonomous organization incorporating within its fold the six institutes established earlier. The NCERT soon became the premier institution for educational research in the country. With its establishment as a central institution, it served as a model for the State level agencies like State Institutes of Education. Gradually, State Councils of Educational Research and Training (SCERT) came to be established in states and Union territories. Educational research in the country includes cross-area studies which provide a knowledge base for education. NCERT and its state counter parts at state level are trying to make use of the results of educational research in policy making and to identify new areas of research.

### 1.13.6 Population Education

Over-population has been one of the burning problems in India. Efforts have been made by the Government to solve the problem through various health measures. But it is still a "huge challenge" as has been visualized in UN Report on the State of the World Population (1997). UNFPA Director

Nafis Sadik endorses the view saying that, "There is only one acceptable way to slow population growth and that is through freedom of choice. That means paying close attention to individual needs, reproductive health, education and equality between women and men."

In the above perspective, along with other efforts, 'Population Education' as an educational innovation being experimented in India since the early 70's can play a potential role in addressing population problem. Realizing its importance, Modified NPE, 1992 states, "Population Education must be viewed as an important part of nations' strategy to contain the growth of population."

The concept of 'Population Education' itself has been changing frequently as a result of changes in the perception of population phenomenon and its relationships with development variable, requiring a fresh look on the subject (Rao, 2001). NCERT and their state counterparts are involved in population education.

### 1.13.7 Special Education

The Government of India has set up four national level institutes to effectively implement government schemes for persons with disabilities, to develop human resources to deal with disabilities, to develop service models, to conduct research and to document and disseminate information. These are:

National Institute of the Visually Handicapped, National institute for Hearing Handicapped, National Institute for orthopedically handicapped and National Institute for the Mentally Handicapped. The Institute for Physically Handicapped and National Institute of Rehabilitation, Training and Research are two more national level institutes of rehabilitation. In addition, the District Rehabilitation Centre (DRC) scheme has been initiated in 10 States aiming at preventive measures and comprehensive rehabilitation. To train manpower for DRCs, four Regional Rehabilitation Training Centres have been established.

No relevance of population education has world wide acceptance (Forrel and Aincow, 2001). An important turning point in this regard has been the National Policy on Education (1986). This policy for the first time included a section on disabilities (Section 4.9).

The District Primary Education Programme (DPEP) is another major step towards universalization of primary education wherein children with special needs are also included.

The task of formulation of curriculum and preparation of syllabus for special schools are done by NCERT and their state counterparts.

### 1.13.8 Vocational Education

Throughout the post-independence period, there have been many attempts to reform the Indian vocational education system and make it more applicable. The list of vocational education policy reforms that have been attempted over the last 60 years is quite extensive. Without raising standards, efforts have been made to go forward with market-oriented reforms to the vocational education system.

Vocational education consists basically of practical courses through which one gains skills and experience directly linked to a career in future. It helps students to be skilled and in turn, offers better employment opportunities (Noonan et al., 2004). Vocational trainings in a way give students some work related experiences that many employers look for. According to a National Sample Survey Organization (NSSO) report two types of vocational trainings are available in India: Formal and Non-formal. Formal vocational training follows a structured training programme and leads to certificates, diplomas or degrees, recognized by State/Central Government, Public Sector and other reputed concerns. Non-formal vocational training helps in acquiring some marketable expertise, which enables a person to carry out her/his ancestral trade or occupation. In a way through such non-formal vocational training, a person receives vocational training through 'hereditary' sources. Often 'Non-formal' vocational trainings are also received through 'other sources'. In such cases training received by a person to pursue a vocation, is not ancestral and is different from the trade or occupation of his/her ancestors. The duty to formulate curriculum and preparation of syllabus and impart training for vocational educational institutions has been assigned to State level mechanism for educational research and training like SCERTs and similar institutions.

### 1.13.9 Adult Education

Adult education, as the term signifies, is the education of grown-up men and women who are above eighteen years (NUEPA,2009). Bryson says, "Adult education includes all activities with an educational purpose, carried on by people, in the ordinary business of life who use only part of their energy to acquire intellectual equipment."

According to Kothari Commission "The scope of adult education is wide: as wide as life itself. Its requirements are somewhat different from those of the normal school system. It depends upon the support it receives from several agencies, particularly the universities and public institutions

and libraries. The effectiveness of the programmes of adult education depends upon a competent administrative machinery."

The National Literacy Mission (NLM) was set up by the government of India on 5 May 1988 with an aim to eradicate illiteracy in the country by imparting functional literacy to non-literates.

### 1.13.10 Educational Technology

Educational technology, the incorporation of information technology into the learning experience, is a term that continues to evolve alongside technological advancements in the field. The issue of educational technology has played a major part in improving the learning outcomes of individuals by personalizing the learning experience (NCERT,2006). The immediate responsiveness of computer based programmes, and the self-paced private learning environment that educational technology warrants seeks to promote higher levels of motivation among students worldwide. It has also provided greater access to education such as in the case of increased accommodation for students with severe physical disabilities and for students living in remote locations.

The SCERTs are playing crucial role in developing new educational technology for better learning process.

### 1.13.11 Organizational and Functional Issues Related to the Changing Role

For meeting the challenges emerged as the result of changing role of the institutional mechanism for educational research and training, development of new organizational and functional strategies had become essential. For that purpose new institutions like DIET, SIET, SIEMAT etc. have been established and new projects like NLM,SSA have been launched. However for giving academic support to such institutions, NCERT and its state counterparts are playing a major role.

### 1.13.12 District Institute of Education and Training (DIET)

The National Policy on Education (NPE, 1986) which was a landmark in Indian education projected teacher education was an important component of education. It recognized the need for the enhanced status of teachers as it stated that "the government and the community should endeavour to create conditions which will help to motivate and inspire the teachers on constructive and creative lines. Teacher's education is a continuous process and its pre- service and in-service components are inseparable. District

Institutions of Education and Training (DIETs) were established in 1980s entrusting the responsibility to organize pre- service and in service courses for elementary school teachers. The programme of Action (1986) envisaged the overhaul of teacher education as the first step towards educational reorganization and the radical transformation of the present system of elementary teacher education. The SCERTs were entrusted with the tasks to sponsor, monitor and evaluate the in-service education programme for all instructors and other educational personnel at school level. It had become the duty of SCERTs to prepare suitable material for in-service education of teachers.

### **1.13.13 State Institute of Educational Management and Training (SIEMAT)**

When the State Institutes of Education were established in the 1960s, there was an expectation that a wing specifically focusing on educational planning and management will be created. In the 1980s as a follow-up to the National Policy on Education, there was an effort to create State Institute of Educational Planning and Administration (SIEPA) at the state level. However, these efforts did not materialize. Interestingly, when DIETs came into existence in the late 1980s, a department/branch of educational planning and management was created and hence, an arrangement at the district level became a reality.

Over the past four years efforts are being made by many state governments, especially those State Governments where externally funded primary education projects are in progress, to create organizational arrangement for educational planning and management at the state level. Based on the experience of setting-up of such organizational arrangements, different possibilities have emerged now. In many states SIEMAT is functioning as a separate institute with the academic support of SCERTs and similar institutions.

### **1.13.14 State Institute of Educational Technology (SIET)**

The application of modern day Audio-Visual Technology, for making the rays of knowledge reach the remote corners of the country, got its momentum during the Satellite Instructional Television Experiment (SITE), started in 1975. The need to constitute the ET movement was felt and it was to the realization of the National Planners to carry it forward in six states: Andhra Pradesh, Bihar, Gujarat, Maharashtra, Orissa and Uttar Pradesh besides having a centre at New Delhi. The centers in these states are called State Institute of Educational Technology (SIET) whereas the center at New Delhi is called Central Institute of Educational Technology

(CIET). The Govt. of India, to enable the children in the country to benefit from ET and Educational Radio Programmes, not only established these institutions for T.V. and Radio programmes production but also monitored the programme's transmission through Doordarshan and All India Radio and their utilization in the field. Subsequently SIETs have been established in many states and this institution is in constant contact with state level mechanism for educational research and training.

### **1.13.15 Open School**

The Jomtien World Conference on Education for All in 1990, and the E-9 Summit resolution of 1993 called for a massive mobilization of efforts to achieve universal elementary education for all, and subsequently secondary education for all. Simultaneous efforts have been contemplated to provide educational and training access to the disadvantaged and the differently abled, and link education/schooling to social and community development. Open schooling and basic education at a distance have got established, in the last two decades, as strong systemic intervention mechanisms to cater to the quality educational needs of millions of deprived people, with very low cost. The National Policy on Education (NPE 1986) underlines that the future of educational delivery belongs to open and distance learning. Many of the world governments have committed to Open Distance Learning and open schooling for long-term educational expansion.

In India the National Institute of Open Schooling (NIOS) formerly known as National Open School (NOS) was established in November, 1989 as an autonomous organization in pursuance of the National Policy on Education 1986 by the Ministry of Human Resource Development (MHRD). NIOS is providing a number of Vocational, Life enrichment and community oriented courses besides general and academic courses at secondary and senior secondary level. It also offers elementary level courses through its Open Basic Education Programmes (OBE). From 1990 onwards various states have started open schools with the academic assistance of SCERTs and similar institutions.

### **1.13.16 Sarva Shiksha Abhiyan (SSA)**

Sarva Shiksha Abhiyan (SSA) is Government of India's flagship programme for achievement of Universalization of Elementary Education (UEE) in a time bound manner, as mandated by 86th amendment to the Constitution of India making free and compulsory Education to the Children of 6-14 years age group, a Fundamental Right.

SSA is being implemented in partnership with State Governments to cover the entire country and address the needs of 192 million children in 1.1 million habitations.

The programme seeks to open new schools in those habitations which do not have schooling facilities and strengthen existing school infrastructure through provision of additional classrooms, toilets, drinking water, maintenance grant and school improvement grants.

Existing schools with inadequate teacher strength are provided with additional teachers, while the capacity of existing teachers is being strengthened by extensive training, grants for developing teaching-learning materials and strengthening of the academic support structure at a cluster, block and district level.

SSA seeks to provide quality elementary education including life skills. SSA has a special focus on girl's education and children with special needs. SSA also seeks to provide computer education to bridge the digital divide. The state level mechanism for educational research and training is involved in the module preparation and State resource group training of SSA.

#### 1.13.17 Rashtriya Madhyamik Shiksha Abhiyan (RMSA)

Rashtriya Madhyamik Shiksha Abhiyan is a centrally sponsored scheme to universalize access to and improve quality of education at secondary stage during the 11th Five Year Plan.

##### The objectives of the scheme are

- To achieve a General Enrolment Ratio (GER) of 75% for classes IX-X within 5 years by providing a secondary school within a reasonable distance of every habitation;
- To improve quality of education imparted at secondary level through making all secondary schools conform to prescribed norms;
- To remove gender, socio-economic and disability barriers, Universal access to secondary level education by 2017, i.e. by the end of 12th Five Year Plan and Universal retention by 2020.

Interventions approved include providing infrastructure in schools such as new classrooms with furniture, library, science laboratory, computer room, disabled friendly provisions etc, recruitment of additional teachers with emphasis on Science, Mathematics and English teachers, in-service training of teachers, teaching aids such as ICT and special focus on SC/ST/Minorities Girls. Steps such as priority for opening

or up-gradation of schools in areas of SC/ST/minority/weaker section and special coaching classes in those areas are also envisaged under the scheme. SCERT and similar institutions are providing academic support to this project.

#### 1.14 ORGANIZATIONAL AND FUNCTIONAL CHALLENGES

The history of the mechanism for educational research and training in the post independence era reveals that there is a progressive increase of functions assigned to it. For meeting the challenges emerged as a result of the functional increase organizational changes had become essential. For that purpose, new institutions like SIEMAT, SIET, DIET etc have been established and the original mechanism had become an umbrella organization. The nomenclature and legal status of the basic institutional mechanism itself had changed. The history of SCERT in Kerala and DTERT in Tamil Nadu reveals this fact.

#### 1.15 NEED AND SIGNIFICANCE OF THE STUDY

The State Council of Educational Research and Training (SCERT) is formulated with the aim of improving the quality education at school level. It has three main functions in the area of school education.

- Curriculum and textbook development
- Teacher training
- Research

Considerable development has taken place with the establishment of SCERTs in the area of school education. SCERT have formulated many innovative programmes for enhancing the quality of school education. Even then there are some pitfalls in the functioning of SCERTs which need immediate attention.

The central and state government are spending a huge amount for the effective functioning of SCERTs. This investment needs a good return in the form of quality school education. In order to achieve this goal timely assessment and reviewing are needed. The strengthening of SCERT will yield a good deal in the area of general education.

The functioning of SCERTs is not up to the mark due to some academic and administrative problems.

SCERT in Kerala and DTERT in Tamil Nadu are the premier institutions in the respective states for educational research and training at school level. Both the institutions assist and advise the Department of General Education of the concerned state in the implementation of its policies

and major programmes in the field of school education. In addition, these institutions are engaged in giving academic guidance to Teacher Training Institutes (TTIs) and District Institutes of Education and Training (DIETs), monitoring their functioning and helping them to achieve their goals of revamping elementary education.

However there are differences both at organizational and functional level. The basic question whether the conversion of SCERT in Tamil Nadu to DTERT makes any qualitative improvement remains unanswered. The major functions of any mechanism for educational research and training are identical, irrespective of its nomenclature. However the organizational structure of various bodies like Institute, Directorate and Council may vary. A Directorate is a direct organ of government while Council may be an autonomous body. Usually the councils for performing government functions may be one established either through government orders or registration under Society Registration Act. Institute may be a separate entity under the control of government. If it is a council or a society it has the advantage of more autonomy. However the Directorate has the advantage of direct and perverse government control. But there is a crucial question, which type of organizational structure is better for performing the important functions in tune with the basic objective of the institutional mechanism for educational research and training. A comparative study of two types of mechanisms in Kerala and Tamil Nadu can give answer to this question.

Though SCERT is an autonomous body, DTERT is a Directorate of the State Government. An autonomous body may enjoy more academic and administrative freedom. They can carry out functions more effectively since the rigorous procedure for the government activities are not applicable to them. However since the administrative control of the teachers and educational administrators are vested in government for the implementation of certain type of activities a government department can act more effective than an autonomous body. There are certain fundamental differences between SCERT and DTERT at functional level also. Hence a comparative study of the functioning of these two institutions will help to find out the strengths and weaknesses at the operational level. The steps to be taken for improving the functional quality may be identified through the comparative study. The study may help to identify and share the best practices of these two establishments and also help to identify any short falls which was unnoticed till now. The study will pave way to develop concrete suggestions which may be

helpful to all such institutions in the country. It seems that in the matter of institutional mechanism for educational training and research different approaches are existing. One approach is to provide mechanism in the government department in education itself. Other approach is to create an autonomous body for this purpose. Though the DTERT in Tamil Nadu is the former type, SCERT in Kerala is the latter type. In these two institutions there are certain differences at the level of organization and functions. So comparative study on the organization and functions of SCERT and DTERT has relevance.

### **1.16 STATEMENT OF PROBLEM**

“ORGANIZATION AND FUNCTIONS OF SCERT, KERALA AND DTERT, TAMIL NADU: A COMPARATIVE STUDY”

### **DEFINITION OF TERMS**

#### **Organization**

The word ‘Organization’ literarily means the activity of organizing; it is a condition or state of being organized. Here by the word ‘Organization’ Investigator means the different organs of SCERT in Kerala and DTERT in Tamil Nadu and officers and members of staff charged with the specific duties and the management of the system, including staff pattern and powers and functions of members of the staff.

#### **Functions**

The word ‘Function’ means work or operate. By the word ‘Function’ Investigator means different tasks of SCERT in Kerala and DTERT in Tamil Nadu and the operating system, including decision making, strategies for implementation, monitoring and evaluation.

#### **SCERT**

‘SCERT’ is the abbreviation of State Council of Educational Research and Training. It is the apex body in the state of Kerala doing different functions including curriculum and syllabus preparation, development of textbook, teacher training, research based activities etc.

#### **DTERT**

Expansion of ‘DTERT’ is the Directorate of Teacher Education Research and Training. DTERT is the main body in the field of school education in the state of Tamil Nadu.

## Comparative

Literary meaning of 'Comparative' is "measured or judged by comparing two items or materials". Here by this word Investigator means comparing of different aspects relating to organization and functions of SCERT Kerala and DTERT Tamil Nadu, by analyzing the similarities and differences between them.

### 1.17 OBJECTIVES OF THE STUDY

1. To identify the organizational structure of both SCERT Kerala and DTERT Tamil Nadu.
2. To identify the functions of both SCERT Kerala and DTERT Tamil Nadu.
3. To compare the organizational structure and functions of SCERT Kerala and DTERT Tamil Nadu.
4. To study the role and functions of SCERT Kerala and DTERT Tamil Nadu with special reference to Non- formal/Adult Education activities.
5. To study the opinion of beneficiaries about the activities carried out by SCERT Kerala and DTERT Tamil Nadu.
6. To examine whether SCERT and DTERT function in such a way as to fulfil the basic objectives of the institutions concerned.

### 1.18 HYPOTHESES

1. The organizational structure of SCERT and DTERT are similar.
2. The functions of SCERT and DTERT are similar.
3. The SCERT and DTERT give due importance to the Non-formal/Adult education activities.
4. The beneficiaries are well satisfied with the activities carried out by the SCERT Kerala and DTERT Tamil Nadu.
5. SCERT and DTERT function in such a way as to fulfil the basic objectives of the institutions concerned.

### 1.19 METHODOLOGY

The present study deals with the comparison of the organizational structures and functions of both SCERT Kerala and DTERT Tamil Nadu. Investigator selected Analytical cum Survey method for the conduction of the study.

Various aspects of the organization and functions of SCERT in Kerala and DTERT in Tamil Nadu were studied on the basis of documents collected

from these institutions. A survey was conducted among the faculty members of SCERT Kerala and DTERT Tamil Nadu. For this purpose two detailed questionnaires were prepared to know the organizational structure and functional aspects of these institutions. The first questionnaire was given to the senior faculty of these institution and the second one was given to all the faculty of SCERT and DTERT. In addition, another survey was conducted among the selected school teachers of upper primary classes to draw the opinion regarding the functions of these two institutions. The Non-formal education faculty members of SCERT and DTERT, Directors of SCERT and DTERT, SSA functionaries of Kerala and Tamil Nadu and the principals of selected DIETs in Kerala and Tamil Nadu were interviewed with structured interview schedules.

#### 1.19.1 Population of the Study

Faculty members from both SCERT Kerala and DTERT Tamil Nadu, school teachers of both Kerala and Tamil Nadu, Directors of SCERT and DTERT, Directors of SSA in both states and the principals of DIETs of Kerala and Tamil Nadu are the population of the study.

#### 1.19.2 Sample of the Study

The Investigator identified a senior faculty member from SCERT Kerala and DTERT Tamil Nadu to get facts regarding the organization and functions of both these institutions. For this purpose, one senior faculty member having above ten years of experience in respective institutions had been selected in consultation with the Directors and questionnaire I (Questionnaire to the senior faculty of SCERT and DTERT) was administered among these faculty for getting valid data. Census method was used for collecting data using questionnaire II (Questionnaire to the faculty of SCERT and DTERT). In SCERT there are 22 faculty members and in DTERT there are 16 faculty members. All the faculty members of both the institutions were selected for getting data. Questionnaire III (Questionnaire to teachers) was used for collecting data from the beneficiaries of SCERT and DTERT. By using random sampling technique 200 teachers from upper primary level as beneficiaries of SCERT and DTERT were selected from one District each of both Kerala and Tamil Nadu. While selecting sample, due representation was given to teachers of government and private aided schools, male and female teachers from both Kerala and Tamil Nadu.

The faculty member of the Non-formal Education Department of SCERT Kerala and DTERT Tamil Nadu, Directors of both SCERT Kerala and DTERT Tamil Nadu, State Project Directors of SSA of both Kerala

and Tamil Nadu and the principals of DIET of Thiruvananthapuram and Kanyakumari form another sets of samples for the study.

### 1.19.3 Tools and Techniques for the Study

The tools and techniques used for the study are the Pre-tested Questionnaire and Interview schedule.

- Questionnaire I ; To collect data from the senior faculty of SCERT Kerala and DTERT Tamil Nadu.
- Questionnaire II; To collect data from the faculty of SCERT Kerala and DTERT Tamil Nadu.
- Questionnaire III ; To collect data from the beneficiaries (school teachers of upper primary level) of SCERT Kerala and DTERT Tamil Nadu.
- Interview schedule A ; To collect data from the Non-formal education faculty of both SCERT Kerala and DTERT Tamil Nadu.
- Interview schedule B; To collect data from the Directors of SCERT Kerala and DTERT Tamil Nadu.
- Interview schedule C; To collect data from the State Project Directors of SSA Kerala and Tamil Nadu.
- Interview schedule D; To collect data from the Principals of DIETs from Kerala and Tamil Nadu.

In addition to the above tools, relevant documents from SCERT and DTERT were also examined for getting valid data. Following are the documents used for the study.

- Memorandum of Association of SCERT
- Annual reports of SCERT
- Budget plan of SCERT
- Annual reports of DTERT
- Budget plan of DTERT

### 1.20 SCOPE AND LIMITATIONS OF THE STUDY

The present study aims at analyzing the organization and functions of SCERT Kerala and DTERT Tamil Nadu on a comparative basis. SCERTs have various roles in the promotion of school education in their respective states. So, it is essential for the strengthening these institutions for the betterment of the educational system. The findings of the study may help to strengthen SCERT Kerala and DTERT Tamil Nadu academically as well as in their structural pattern. Since the important

function of SCERT in Kerala and DTERT in Tamil Nadu is to provide academic backup for qualitative improvement of school education through reorientation of content, process and practice of education, a study on the organization and functions of these two institutions will help to take adequate measures for making these two institutions more effective. There are some academic as well as administrative problems which adversely affect the proper functioning of SCERT and DTERT. The lack of a permanent Directors and inadequacy in the staff structure are the main weaknesses of these two institutions. The present study attempts to trace the strength and weaknesses of SCERT and DTERT and suggest certain directions for improving these two institutions. Since the mechanism in Tamil Nadu is the Directorate and in Kerala is Council constituted as a charitable society controlled by the government, the question which type of mechanism is more effective is relevant in formulating a national policy in this regard.

There are thirty one SCERT/SIEs, including Union Territories, all over the country. But the present study has been carried out only in two of such institutions, which have been selected because both these institutions have different legal status, organizational structure and functional strategies. Another limitation of the study is that since the functions of the institutions for educational research and training are very vast and complex, the sample selection of teachers as beneficiaries for the study is limited to one district of each state. In Kerala there are 14 revenue districts and in Tamil Nadu there are 32 revenue districts. From Kerala, Thiruvananthapuram and from Tamil Nadu, Kanyakumari are selected for the study. Teachers who are working in other districts are not included in the study. Teachers who are working only in upper primary level are selected as samples of the study. The Investigator could not analyze the teachers in the area of Teacher Training Institutions (TTIs) as they form the beneficiaries of both SCERT and DTERT. The investigator could not analyze the student achievement status as the students form the ultimate beneficiaries of educational system.

### 1.21 STATISTICS USED FOR THE STUDY

The data obtained from various official records were analyzed using the criteria. The data collected using the questionnaires were tabulated and analyzed using appropriate statistical techniques like percentage analysis, 'Z test' and 'Chi square' analysis.

## 1.22 ORGANIZATION OF THE THESIS

The present thesis is divided into five chapters namely

### Chapter 1-Introduction

It includes education in India, role of state in education, educational administration, educational research and training, institutional mechanism for educational research and training, national level mechanism and its role, state level mechanism, evolution of SCERTs, changing role of the mechanism for educational research and training, brief sketch of SCERTs in the state, need and significance of the study, explanation of terms, objectives of the study, tools and techniques used in the study and the scope and limitations.

### Chapter 2-Review of Related Literature

The second chapter contains related literature and studies under four headings such as studies related to organization, studies related to administration, studies related to planning and management and the studies related to functional level. A review of projects, reports, studies and articles in the area are attempted to explain here.

### Chapter 3-Methodology

The third chapter discusses the methodology of the study. It includes design of the study, tools prepared for the study, the process of tool preparation, procedure of data collection and treatment of the data.

### Chapter 4-Analysis and Interpretation of Data

Here the data gathered is analyzed in terms of the objectives of the study. The statistical analysis of the data and interpretation of the results are presented in this chapter.

### Chapter 5-Summary, Findings, Conclusion and Recommendations

Summary, findings of the study, tenability of hypotheses, conclusion, suggestions and recommendations for betterment as well as for further research are included in this last chapter. This is followed by a detailed bibliography and appendices.

## Chapter-3

# REVIEW OF RELATED LITERATURE

## REVIEW OF RELATED LITERATURE

The search for related literature is one of the preliminary steps in research. The main objective of reviewing related literature is to make the researcher up to date with the research. Every effective research is based upon past knowledge. To bring out an advance in scientific knowledge, the educational researcher must identify and understand the research that has already been done in the field of interest. The knowledge of the past help us to eliminate the duplication of what has been done and provides useful hypotheses and helpful suggestions for significant investigation. According to Mouly (1970), the study of related literature is a crucial step which invariably minimizes the risk of dead ends, rejected topics, watershed efforts and trial and error activities engaged in by previous Investigators.

Review of related literature is an essential aspect of any research since it helps the Investigator to understand the scientific method. According to Agarwal (1966) "Survey of related literature implies locating, reading and evaluating reports of research as well as reports of casual observation and opinion that are related to the individuals planned research project".

An analysis of research works shows that there are very few studies which are directly related to the organizations and functions of educational institutions. In the forthcoming pages, studies related to the present topic are collected and classified under different heads and presented.

### They are classified under four heads

1. Studies related to Administration
2. Studies related to Organization
3. Studies related to Planning and Management
4. Studies related to Functions



## 2.1 STUDIES RELATED TO ADMINISTRATION

**Sujatha (2009)** identified that SCERT in Andhra Pradesh helps the department of education by providing required information, by conducting need based research studies and evaluation of studies not only for formulating policy but also for implementing various activities in the field. It was pointed out that SCERT functions as a nodal agency for qualitative enhancement of school administration and teacher training.

**Kowalski (2008)** in his study 'Case Studies on Educational Administration' analysed the problems in educational Administration. The main findings of the study were: Effective practice in school administration requires both leadership and management. In today's reform-minded, information-based society, practitioners must be able to frame problems correctly and then make effective decisions to ameliorate them. As leaders, district and school-level administrators are expected to focus on what should be done to improve schools; as managers, they are expected to focus on how to do things successfully. The cases in this book are designed to make students think about common problems of practice by encouraging them to bridge theory and practice. More precisely, the cases are intended to bring four essential practitioner skills:

1. The ability to frame a problem correctly
2. The ability to develop and evaluate alternative solutions to a defined problem
3. The ability to use data and other facts to counter the influence of politics and emotion in decision making
4. The ability to grow professionally by engaging in reflective practice

**Maheswari (2005)** in her study revealed that there exists wide inequality in the enrolment between boys and girls. Therefore appropriate educational programmes are essential to reduce the gap between boys and girls in the state. In order to reduce wastage in education, drop-outs should be reduced. Therefore a need based educational programme is essential to reduce the drop-outs.

**Nayal (2005)** made a comparative study of Knowledge of Leadership Qualities, Attitude and Functioning of the Principals of Government and Non-Government Upper Primary Schools of Agra District. The study revealed that:

- The planning, organizational, budgeting attributes' knowledge, attitude and functioning of the principals of government upper primary schools have been found higher than those of the non- government schools.

- No significant difference has been found in the instructional and reporting attributes' knowledge, attitude and functioning of the principals of government and non- government upper primary schools.
- The attitude of the principals of government upper primary schools towards various units of the society has been found significantly higher than that of non-government schools.
- No significant differences have been found between principals of government and non-government upper primary schools towards planning, organization, instruction, and budgeting, whereas, significant difference has been reported towards reporting in favour of government schools as per the perceptions of teachers.
- No significant difference has been found in the planning attributes' knowledge, attitude and functioning of the male principals of government upper primary schools and that of the non-government schools.
- No significant difference has been found in the Instructional attributes' knowledge, attitude and functioning of the male principals of government upper primary schools and that of the non-government schools.
- No significant differences have been found in between female principals of government and non-government upper primary schools towards planning, organization, and instruction, whereas, significant difference has been reported towards budgeting and reporting in favour of government schools as per the perceptions of female teachers.

**Achuthan (2004)**, while making a critical analysis of Practice of School Inspection by District Educational Officers in Alleppey district, suggested that every teacher must be inspected at least twice in a year.

**Vasanthi (2003)** studied Tamil Nadu Primary Education policy and found that regular in-service training helped teachers in their work, gather more information and meet other teachers and officers.

**Nair (2002)** conducted a study on the 'Problems and Prospects of Teacher Education at Secondary Level in Kerala Since 1984'. The major findings of the study were:

- Development of an aptitude test for B. Ed admission is advisable.
- Minimum eligibility for admission should be either post graduation or first class graduation.
- Extension of duration of course along with revision of the syllabus is needed.

**Kumari (2002)** conducted a study on the History and Problems of Teacher Education in Kerala. She analysed the following aspects:

1. Curricular aspects of teaching
2. Different aspects related to practice teaching
3. Evaluation procedure.

**Tyagi and Singh (2001)** stated that there is no SCERT in Pondicherry and stressed the need to increase the number of in-service training to teachers. **Goyal and Gouswami (2000)** identified one important fact relating to educational administration in Daman and Diu namely insufficient educational personnel to inspect and supervise.

**Ganesan (1997)** studied the teacher education programme through formal and distance education in the University of Madras and found that the classroom teaching performance of teachers trained through ICE and regular college is found to be almost equal. **Peer (1996)** found that educational progress in Madras city is an outcome of the cumulative efforts of the government and non-governmental agencies. **Mahajan et al. (1995)** identified that in Andaman and Nicobar the major issue is that what programme should education institutions provide to generate a feeling of Nationalhood among people who are geographically delinked from mainland is an issue which should be constantly kept in view by educational administrators and policy makers.

Regarding the educational administration in Goa, **Mahajan et al. (1994)** pointed out that research base which can support educational planning and development seems to be inadequate.

**Taj (1992)** studied the Social Psychological and Situational Correlates of Administrative Behaviour of Secondary School Heads and found that the attitude towards the profession, job satisfaction and personal-interpersonal social adequacy were found to be significant predictors of the administrative behaviour of secondary school heads.

**Pati (1992)** found that the supervision and administration problems of secondary schools are mainly shouldered by the head of the institution and it is the headmaster who focuses attention on the various problems arising and work motivation and organizational climate. Supervision should be periodically used and corrective action should be taken by appropriate authorities.

**Kalpande (1990)** studied the problems of the block level educational administration with special reference to the role of extension officers in the administration of elementary education and found that organizational structure, work motivation and organizational climate should be periodically assessed and corrective action should be taken accordingly.

**Dhulla (1989)** studied the role, administrative style, teachers' job satisfaction and students' institutional perceptions in determining the nature of school climate and observed that the school climate was found to be positive and significantly correlated with teachers' job satisfaction and student's institutional perception in terms of administration style.

**Mohanty (1988)** studied the pattern and problems of administration and supervision of primary schools in Orissa. He found that supervision is to be separated from administration, particularly at the grass roots level, so as to enable Inspectors to freely look into the academic growth of leaders.

**Sharma (1987)** compared the Administration of Boards of School Education in India and reveals that:

- The aims and objectives of some of the boards were ambiguous and not clearly defined.
- In the appointment of the chairmen of these boards different criteria were followed. In some, the chairman was an educationist, while in others he was a non-academician.
- The secretary of the Board, a principal executive officer, was appointed by the state government. However the criteria of appointment differed from board to board.
- The main weakness in the functioning of these Boards was the absence of a well organized system of personnel administration.
- The pay scales and other service conditions of the employees were different in different Boards generally. All the boards followed the pay scales of the respective state governments.
- All the boards prescribed courses and textbooks for different levels of school education.
- Some boards ran correspondence courses also and published journals and Annual Reports.
- All the Boards except those of Rajasthan and Madhya Pradesh were housed in rented buildings.

**Das (1987)** studied the Administration of Examinations of the Board of Secondary Education and concluded that the administrative machinery of the Board was ill-equipped to implement the reforms introduced in examinations conducted by it. It appeared that the Board was a governmental agency to achieve certain non-academic ends at the cost of academic ones. There was inadequacy in the Boards' administration of examinations in implementing properly the reforms to produce the desired impact. Certain serious defects in the scales used by the examiners in marking examinations

were also marked. There was a the need for immediate overhauling of the Board's administration of examinations.

**Mathew (1987)** studied educational development in Kerala from 1840 to 1983 and saw that there is a fast educational development in Kerala in those days. **Khandanga (1986)** studied the situation in Orissa and concluded that the educational management in Orissa took shape during British rule but was not deep rooted, and the British policy of entrusting responsibility for primary education to local bodies did irremediable harm.

**Pathak (1986)** studied the growth of administration and organization of in-service education for secondary school personnel in India. The study revealed that the apex body made gradual efforts to transfer the responsibility to states/local managements during the period from 1955-1971, and the goal was achieved in 1971.

**Varghese (1986)** analysed the education and labour market in India and found a structural shift in employment from primary to secondary, and further to tertiary sectors. The study further revealed that the educational level of the workforce had improved.

**Barooah (1986)** studied the development of poly-technic education in Assam where it had not developed adequately to the needs. The lack of improvement was ascribed to poor administration and planning.

**Jagannadhan (1986)** while studying the takeover of panchayat schools by the Government of Tamil Nadu and its impact highlighted the fact that the pre-service training received by the teachers before recruitment was quite insufficient. **Natesan (1986)** studied Education and Social Change in Tamil Nadu and found that the spread of education was primarily responsible for socio-religious reform movements.

**Pracha (1985)** concluded that administrative problems in physical education departments of colleges and universities were mainly due to lack of equipment and other facilities.

**Misra (1984)** studied the Educational Administration in Orissa and says that:

- There was a lack of a suitable, efficient educational bureaucracy in Orissa.
- Lack of proper and suitable advisory to the Orissa government in educational matters came in the way of formulation of administrative policies in the matter of education, perspective planning and programme planning.
- There was neither any long term educational policy nor any standing administrative policy in education on Orissa.

- Lack of long term educational policy resulted in non availability of sound educational planning.
- Politicization of educational administration had resulted in bringing weak and inexperienced administrators to power.
- Educational administration was dealt within the same manner as the general administration.

**Radhakrishnan (1984)** made a study of Education Administration in Tamil Nadu and found that the District Educational Officer should have full power for framing the curriculum for the educational district and the Chief Educational Officers should have full power to approve the location of the school and accord recognition to it and the authority to sanction introduction of new courses and bifurcation of classes on the basis of the recommendation of the headmaster.

**Bajpal (1984)** made a critical review of the administrative set-up for secondary education in Uttar Pradesh after independence and concluded that:

- Secondary Education in the state of Uttar Pradesh is managed by local bodies and voluntary agencies.
- In the schools managed by local bodies, there is strict control by the government and the staff can be transferred also.
- In schools managed by the private agencies and religious organizations narrow sectarian policies are followed and sometimes powers are misused also.
- There are significant differences in the administration of the government, local bodies and the private schools.
- There has been reorganization of secondary school administration after independence but, in general, it is in the pattern of the model set-up during the British period.

**Mathew (1984)** in his study revealed the organizational structure of the Ministry of Education of the Government of India in a historical perspective, rating it by its functional components. **Baruah (1983)** made similar study in Assam and found that the growth of the number of institutions at secondary level was significant, but administration remained traditional and bureaucratic.

**Saenghirun (1983)** found that the administration of adult education in Thailand was systematic and integrated with general education and societal needs. **Sriratna (1983)** examined the problem of educational administration in Thailand and found that the community participation was too low to improve school effectiveness. **Chauhan (1983)** surveyed the characteristics of Innovative Educational Administrators of Gujarat. He concluded that the personality

attributes of innovative educational administrator were ability to supply new ideas, ability for comprehensive observation, ability to diffuse new ideas, ability to deal with abstracts, open-mindedness, ability to adjust, frankness and belief in fostering public relations. Besides this, it was found that 36 out of 40 innovative educational administrators had new administrative ideas.

Administrative behaviour of secondary school principals was studied by **Das (1983)**. His findings are:

- The secondary school principals were moderately effective in their performance of administrative tasks.
- There was significant positive relationship between principals' administrative behaviour and the teachers' attitude towards work and work setting behaviour of the institution.
- There was no significant relationship between the principals' administrative behaviour and the climate of their schools.
- The teachers manifested most favourable attitude towards supervisory relations as compared to administrative policies and support, staff relations, work load, and student evaluation practices.
- There was no significant relationship between teachers' attitude towards work and work setting of the institutions and student achievement.
- There was no significant relationship between school climate and students' achievement.

**Misra (1983)** made a critical study of Administration of Secondary Education in Rural Areas of Faizabad Division and found that Managements' political affiliations were found to hamper the working of institutions and there were few opportunities for academic upliftment of teachers. **Mehendiratha (1982)** compared the university administration of USA and India and found that the aims and objectives of the system are the same in both countries. US universities have, however, participative management, collective responsibility and decentralized authority, whereas Indian universities have decentralized responsibility and centralized authority.

**Sharma (1982)** conducted a study on the progress and problems of teacher education in India. The aims were to examine the growth and development of teacher education in India and identify the problems. The information was collected in the light of the modern concept of teacher education, the qualities of a teacher, the teacher's role in the modern society and pre-service teacher education programmes. The main findings are:

- The teacher education programmes had not undergone any marked improvement.

- Methods of teaching and evaluation used in training institutions were traditional.
- There was lack of research data in the field of teacher education and there was immediate need of organizing refresher courses, short term intensive courses in special subjects, practical training workshops and professional conferences.

**Kaur (1981)** critically studied the organization of Educational Administration and Finance in the state of Uttar Pradesh and came out with the following results:

- There had been a very rapid increase in the enrolment of students at all levels and in all types of educational institutions.
- To ensure proper teaching, the number of teachers had also been raised but there had been no appreciable change in the teacher-pupil ratio over the years.
- The strength of supervisory staff in the Directorate of Education had also been raised considerably.
- Prior to independence, the Chief Secretary looked after the problems connected with education in addition to his various other duties. A separate Ministry of Education to look after the development of Education was set up thereafter.
- There had been considerable increase in the expenditure on programmes for adult education.
- As regards qualitative aspects, it was observed that at higher level, physical facilities such as building, equipment, laboratories and libraries needed improvement.
- The teachers felt that there was a need for improvement in their working conditions. Their work load was heavy. Their pay scales sanctioned by the UGC in 1973 needed revision because of the rather rapid raise in prices over the years.

**Goswami's (1980)** research work on university administration revealed that there is rapid growth in all dimensions without proper planning and scientific management.

**Sinha (1979)** conducted a more or less same study on university administration. In this study he found that university administration suffered due to centralized division making, unscientific allotment of work to various sections and little co-ordination and linkage among different groups.

Regarding the structure, processes and future prospects of Educational Administration in different states NIEPA conducted the Second All India

Survey of Education Administration covering all states and union territories. The survey report consists of brief description of Educational Policies and programmes, organization and administration of Education, role of NGOs and local bodies, personnel management, financial management, information system, process of educational planning, inspection, supervision and academic support systems.

**NIEPA (1979 a – 1979 i)** examined the Status of Elementary Education and its Administration in Andhra Pradesh, Assam, Bihar, Uttar Pradesh, Jammu and Kashmir, Madhya Pradesh, Orissa, Rajasthan and West Bengal. These studies revealed the multifaceted problems of elementary education and suggested possible solutions.

**NIEPA (1979)** studied the Administration of Elementary Education in relation to the Programme of Universalization of Elementary Education in Andhra Pradesh. The major findings of the study were:

- Only 50% of the schools had proper buildings but BDOs reported that 80% schools did not have proper buildings. Almost all schools lacked proper furniture, equipment and teaching aids.
- Cooperation of the community was noted only in villages with enlightened parents.
- The condition and functioning of single teacher schools were far from satisfactory.
- 60% of the DEO's time was consumed in administrative responsibilities.
- The delayed administrative sanction by the government affected the implementation of the UEE programme.
- At the secretariat level, no special machinery existed for the speedy sanction of schemes related to the UEE programme.

**NIEPA (1979)** studied the Administration of Elementary Education in relation to the Programme of Universalization of Elementary Education in Assam. The findings of the study were:

- The condition of the school building was far from satisfactory.
- Furniture and teaching aids were inadequate and there were large number of village schools which were functioning without a blackboard, a map or a globe.
- Due to shortage of housing facilities in rural areas, many teachers had to come from distant places and therefore had hardly any time to contact the community.

- There was no co-ordination between various functions at the village level with regard to improving the quality of Education and sharing joint responsibilities for increasing enrolment.
- There were 1000 non general education centres, for the children in the age group of 9 - 11 in the rural areas all over the state but due to lack of coordination and understanding with formal educational institutions, their aim of covering the drop-outs from the formal schools could not be realized.
- In the absence of suitable machinery at the directorate level, there was no procedure for preparing district, sub-division, block and village level plans for Elementary Education.

**NIEPA (1979)** studied the Administration of Elementary Education in relation to the programme of Universalization of Elementary Education in Bihar. The study concluded that:

- The directorate of primary education functioned separately with a director assisted by five deputy directors. The five deputy directors dealt with matters exclusively under their previous officers.
- Urgent need was felt for the delegation of powers among officers.
- There was immediate need to effectively coordinate the activities of the directorate of adult education and those of the directorate of primary education.
- The statistical unit, the planning cell and the budget section at the secretariat level needed strengthening and streamlining.

**NIEPA (1979)** conducted a study of the Administration of Elementary Education in relation to Universalization of Elementary Education in Jammu and Kashmir and concluded that:

- The non-formal education centres were opened on an arbitrary basis and therefore failed to function.
- At the State level, 85% primary schools were single teacher schools and poor retention of the school was the main cause for low enrolment.
- There was no separate branch at the directorate for ensuring the performance and progress of elementary education.
- The two divisions of SIE at Jammu and Srinagar looked after the organization of various pre-service and in-service programmes, preparation of guide books for teachers and organization of UNICEF-aided projects relating to the UEE programme.

**NIEPA (1979)** Studied the Administration of Elementary Education in relation to Universalization of Elementary Education in Madhya Pradesh. The Major findings of the study were:

- The majority of the teachers (70%) were satisfied with the present conditions and arrangements regarding jobs.
- In all, 597 non-formal education centres were run by the government agencies. There was a programme for opening 2,000 more centres during 1979 – 80.
- The average enrolment at the governmental centres was 25, and at the NCERT centres it was 50.
- Though the role of the Directorate of Public Instruction in education is the expansion, administration, supervision and training of personnel from pre- primary to higher secondary levels, its role was limited only to academic supervision and control of examinations in the tribal schools.

**NIEPA (1979)** studied the Administration of Elementary Education in relation to Universalization of Elementary Education in Orissa. The major findings of study were:

- Very few schools were inspected more than once by the SIs; the number of surprise inspections was even less.
- As per the opinion of the BDOs nearly 50% of the schools did not have proper building; the pupils in almost all the schools were seated on the floor.
- There was practically no regular system of coordination between the functionaries of the education department and those in development departments.

**NIEPA (1979)** studied the Administration of Elementary Education in relation to Universalization of Elementary Educations in Rajasthan and the major results show that:

- The non-formal education centres run by these DEOs and voluntary organizations recorded only 50% attendance as there was no coordination between the formal school and the NFE centres due to inadequate supervision and monitoring.
- The administrative machinery in the Education Department at the secretariat level was ill-equipped with the programmes of elementary education in relation to universalization.
- Hostel facilities were not available for upper primary schools and many villages had no upper primary schools.

- The response of the local community for providing school building and equipment was not encouraging.

**NIEPA (1979)** studied the Administration of Elementary Education in relation to Universalization of Elementary Education in Utter Pradesh and found that:

- Most of the school buildings were inadequate and community participation in their maintenance and repair was not significant.
- Almost all the schools were ill- equipped and the contingency fund needed to be increased.
- There was no coordination of school functionalism with personnel of other developmental agencies at the village level.
- Deputy Inspectors of Schools were the key in the administration set up as far as the UEE programme was concerned but they were not effective because of constant occupation with non-academic work.

**NIEPA (1979)** studied the administration of Elementary Education in relation to Universalization of Elementary Education in West Bangal. The major findings of the study were:

- No efforts were made, at any stage, by any agency either to bring about needed educational change or accept reforms that are indicated by the government
- In the absence of any in-built system of the administrative set- up to assess the-non-attenders and drop-outs, it was difficult to successfully implement the UEE programme.
- The SIE, the academic arm of the government, had not been strengthened and empowered to generate and diffuse new ideas.
- No co-ordination existed between the primary and the secondary directorate.

**Das's (1979)** research work in Assam revealed that the administrative machinery at elementary level was inadequate to cope with continuous expansion in relation to universalization.

**Nambiar (1976)** conducted a study on the Administration of School Education in the state of Kerala, in which he arrived at the following findings:

- Several provisions in the Kerala Education Act and Rules were adequate to ensure that private schools were properly conducted.
- The standards of instruction were very low as assessed by the results of external examinations and the enormous expenditure of the State and national resources.

- The teachers' union, with their political leakage, was the main instigation of indiscipline among the members.

**Raj (1975)** conducted a survey on Management and Administration of Education in Tamil Nadu and made the following findings.

- The department of education was broadly divided into two directorates, the directorate of school education and the directorate of college education.
- While both the directors of the directorates were paid the same salary, the workload and responsibilities of the director of school education were very heavy.
- Hierarchical promotions were based on length of service and seniority, with the result that senior positions were manned by persons who had neither capability nor imagination.
- Executive positions were often given to academics without any special training being imparted to them.
- The structure of the organization had not changed to meet environmental needs.
- Internal and external coordination with other educational agencies of the state was lacking.
- There were a number of committees to lay down guidelines in the management of education but none of the committees ever met.

The study conducted by **Singh (1975)** traced the evolution of educational administration in Himachal Pradesh during post-independence years with special reference to functional and educational aspects. The major findings of the study made by **Damoder (1973)** in Andhra Pradesh with various objectives and using different techniques were:

- The majority of the colleges of Education were lacking in facilities like accommodation, equipment.
- The majority of the colleges did not have model or practicing high schools.
- Supervision was a joint venture of college and school subject teacher.
- The position of innovation and research in the colleges was not encouraging.

**Vats (1972)** worked on Leadership Roles in Educational Administration in Punjab. The major observations were (i) New stresses and strains had developed within the administrative system, hence there was a need for improvement of personnel efficiency, discipline and personnel system, methods and practices. The expansion of education demanding increasing responsibility and functional

competence at the lower sectors highlighted the necessity for more managerial expertise on the part of the administrators so that they were able to energise the administrative organisation to full action. (ii) As regards institution building, more than sixty percent leaders at all levels said that there was practically no attraction for developing new ideas and new programmes. (iii) It was noted that administrators at all levels had a reasonably clear perception of their role. If they were given more time for self development and were suitably trained, they might be able to play a meaningful leadership role. (iv) It was observed that practical knowledge relating to a problematic situations was increasingly becoming the basis of leadership; another field wanting in leadership role was the capability of the administrators in taking decisions. (v) Administrative leadership appeared to be somewhat personalistic; further, there was a formal type of relationship in the education department and the life of the subordinates was made difficult because of administrative inaptitude. (vi) The interference of the politicians in day-to-day administration was found to be non-conducive to a flourishing leadership role.

**Inamdar (1971)** studied the administrative problems in the Zilla Parishads in Maharashtra: The study's conclusions from the analysis of the data pointed out that the present pattern of the educational administration under the control of the Zilla Parishads is defective and that, unless a radical change is brought about in the whole pattern, there is no possibility of reforms towards the improvement of the quality of primary education in the rural areas.

**Vartak (1971)** made a critical study of Education Organisation, Administration and Problems, under the Maharashtra Zilla Parishads and Panchayat Samities Act of 1961, in the State of Maharashtra. Results revealed that: (i) due to decentralised administration of education there is spread of education in rural areas and as it has started developing, it appears that this type of administrative set up is beneficial to the state; (ii) education has become the common man's interest and because of this, it has gained momentum; the administration of primary education being on block/taluk level, the delay in the administrative procedural work has been avoided to some extent; (iii) the attitude of the people's representatives in the rural areas is cooperative and there is a feeling of participation in educational administration (iv) bureaucratic attitude of the administrative education officers still appears to be the same as was seen in the British regime.

**Ezekel (1966)** investigated the Teacher Participation in School Administration in Greater Bombay. The purpose of this investigation

was to ascertain conditions and describe situations conducive to effective participation by teachers in administration, and to study the philosophy underlying the theory and practice of participation in administration on the part of teachers. Teacher participation in school administration is a democratic form of administration and is desirable; there must be some centre of responsibility and authority in school administration; and participation should be voluntary and should imply a certain responsibility.

**Ramachandran (1966)** conducted a study on the problems of administration and organization of training schools in Kerala. He found that the programme of teacher education failed to cope with the basic spirit as envisaged by Mahatma Gandhi; and, the programme failed to instil leadership qualities in trainers.

**Krishnamurthy (1965)** made a critical study of Reforms in Educational Administration introduced in Andhra Pradesh during 1956-66 and concludes that:

- (i) the reforms in Andhra Pradesh are ahead of time as the same measures are recommended by the Education Commission headed by Kothari (1966);
- (ii) reforms introduced so far are flexible and capable of being expanded or amended;
- (iii) the reforms are aimed at bringing about efficiency in administration, economy in finance, and development and spread of education;
- (iv) wholesale interference of non-officials is evidenced, which tells upon the efficiency in administration and develops unhealthy trends;
- (v) the reforms introduced are progressive measures as they are in accordance with the latest thinking in the field of educational administration;
- (vi) bifurcation of the directorate has not solved the problems intended to be solved; and
- (vii) the newly established special institutions are lacking in imposing impact on the quality of teaching. The Investigator offered the following suggestions for further strengthening of the administration:
  - (i) there is a need to define clearly the powers and responsibilities of the Deputy Secretaries of education in Zilla Parishads and the designation should be changed as Education Secretary, Zilla Parishad;
  - (ii) he should be a trained graduate with teaching experience;
  - (iii) experienced educationists and retired educational administrators should be associated with education under Panchayat Raj by taking them into study committees and other bodies connected with education;

- (iv) there should be special inspection under the control of the department to inspect the schools in Zilla Parishads; and
- (v) an evaluation officer should be attached to the district education officer to guide and strengthen the examination system in each district.

**Sharma (1964)** through his study 'A New Concept of Educational Administration in India' revealed that:

- (i) the districts were uneven in size, which resulted in appalling disparity in the work of the divisional officers;
  - (ii) the administrative set-up which had its origin in Wood's Despatch had not grown in its utility value;
  - (iii) there was lack of coordination between the head of the department and the secretariat;
  - (iv) centralisation of authority at state, divisional, and district levels was conspicuous;
  - (v) supervision of teaching was very inefficient and the introduction of diversified courses had made it all the worse;
  - (vi) the structure of the supervision report varied from region to region;
  - (vii) the basis for the selection of teachers was anything but merit and efficiency;
  - (viii) centralisation of powers was causing delay in decision-making;
  - (ix) administrators, at all levels, were dissatisfied with their pay scales.
- Singh (1964)** studied the Growth and Evaluation of Educational Administration in Bihar and the main findings of the study were:
- (i) there existed little coordination between the efforts of central government and state government for streamlining and creating a better system of educational administration;
  - (ii) the inspectors of the schools were there merely to find fault with the teachers rather than improve their competence;
  - (iii) there was avoidable duplication of work in the inspection system;
  - (iv) the desirability of the inspectors being specialists in teaching various school subjects was reported;
  - (v) administrative efficiency was marred due to the delay in decision making at various levels of administration;
  - (vi) at planning and financing stage, little effort was made to take into consideration the growth of the population, social and academic needs



and aspiration of the growing society. A national system of education needs central patronage and the full sense of such patronage is not fulfilled in mere planning and financing. There should be some sort of central control also.

**Khanolkar (1960)** made a critical study of Secondary School Organisation in India with special reference to Multipurpose Schools and revealed that (i) multipurpose schools were not new to the secondary school system, as practical courses were introduced, in some form or another, in the latter part of the 19<sup>th</sup> century; (ii) the Indian secondary school, instead of being able to influence society, had itself remained under a class and caste dominated Indian society; (iii) the multipurpose schools appeared to have followed a western pattern but were found in practice to suffer from many deficiencies, in addition to those inherent in the Indian secondary school system in general.

**Mathur's study (1959)** on 'Administrative Policies Governing Substitute Teachers serving in Higher Secondary Schools in Major Cities of Uttar Pradesh' concludes that:

- (i) in 103 schools in 1955 – 56, the number of substitute teachers was seventy six (2.7 percent of the total teaching population), and the percentage of substitute teachers increased from excellent to bad type of institutions, considered on the basis of economic status;
- (ii) the administration of substitute teaching service is controlled by the department of education, managing committees, municipal boards, and the principals.

The objective of the research work conducted by **Shah (1951)** was to study critically the problems of educational administration in India. The Investigator has reported that:

- The Indian educational administration under the British was centralised and bureaucratic.
- There should be one common Act for all towns and a separate common Act for all rural areas, where the state should reserve for itself the power of inspection and some other major powers of administration. As regards the problems of educational administration at the higher stage, the question of autonomy of the universities, their relation to the federal and the state government, their finance and the varying rates of grants-in-aid were considered.
- To secure larger financial resources for education it is suggested that the Government of India should spend ten percent of its revenue on

education, the states should spend ten percent of their revenue and the local boards should spend a specified amount and that a special tax be levied to get additional funds. No state passed an education Act. The Constitution had, however, taken a great step forward. The desirability of the Constitution having a separate chapter on education is stressed.

## 2.2 STUDIES RELATED TO ORGANIZATION

**Mohan (2005)** studied the organizational health and academic performance of schools in Tamil Nadu and stated that the academic performance of students of the schools is due to the influence of the leadership style of the headmaster/ principal and organizational health of the school.

**Baruah (2004)** compared the Organizational Climate of Government and Privately Managed High Schools of Kamrup District in Assam and arrived at quite meaningful findings. Some of the revelations are :

- The organizational climate of the secondary schools of Kamrup district differs from one another.
- The smaller the school the better is the communication amongst the staff, which ultimately leads to the opening up of the climate.
- There seems to be no relation between the climate and variables like qualification and experience of the teachers.
- Teacher's job satisfaction is more in an open climate.
- Headmasters of the types of schools were found to enjoy a cordial relation with the staff members, particularly, the Headmasters of the Government schools.
- Qualification and experience level of the teachers and headmasters working in both the types of institutions were found almost same.
- Private schools were found to have an edge over the government schools in some of the infrastructural facilities.
- The Government is suffering from scarcity of financial resources for providing infrastructure and developing quality of secondary education.
- There is too much of political influence in the appointment of teachers of the Government schools, but it is not the case in private schools.
- Most of the teachers of the Government schools are satisfied with their job in the sense that they are getting a good salary, which is not the case amongst the Private school teachers.
- Academic achievement of the Private school students is much higher than that of the Government school students.

**Majundar and Mark (2000)** stressed the need to strengthen SCERT in Meghalaya in terms of infrastructure and organizational arrangement to enable it to carryout its functions and responsibilities.

**Kapoor et al. (1994)** identified that in Punjab, there is academic infrastructure in the form of SCERT and highlighted that the immediate requirements for long term educational development are :

- Strengthening of planning and administrative arrangements for educational functions;
- Improvement of infrastructure for research and development, training and extension support to education; and
- Building up of an information system, which not only enables realistic planning, but also allows determination and implementation of corrective remedial action.

**Mahajan et al. (1994)** stressed the need to revitalize the SCERT in Haryana and strengthening the academic wing of Board of School Education. **Verma and Rana (1992)** studied Perceptual Differences on Organizational Effectiveness and found that such perceptions are associated with the background of the perceiver. It is also found that the university had differing perceptions. **Solanki (1992)** found that the organizational climate of secondary schools was independent of organizational management, place of school and sex of the student population. There was a relationship between resources management and the organizational climate of secondary schools. **Mittal (1990)** made an in-depth study of the school buildings for higher secondary and secondary schools in four states. The study reveals the poor infrastructure facilities in these schools.

**Singh (1988)** in his study 'Organizational Climate' found that organizational climate is significantly related to teachers' attitude. An open climate leads to more positive attitude and a closed climate to less positive attitude.

**Kapoor and Premi (1988)** in their study Development and Maintenance of Educational Services attempted to revise the existing norms with regard to the opening and upgrading of schools, school building, provision of furniture and equipment including library and laboratory facilities and provision of teaching, non-teaching and supervisory staff in Haryana State. The study was expected to help the Haryana State government in revising the norms with regard to the academic and physical infrastructure in schools and this helped in working out the costs of various programmes on a more realistic basis.

**Mukhopadhyay and Murthy (1986)** studied personnel structure in Engineering colleges and proposed rational structures. They found wide intra and inter collegiate variations in the ratios between teaching staff and technical staff, teaching staff and clerical staff and among the professions Readers and Lecturers.

**Baraiya (1985)** studied the organizational climate of Higher Secondary Schools of Gujarat State. The major findings were:

- Out of 100 schools, 27 were found to have autonomous climate, six have controlled climate, six familiar climate, 16 paternal climate whereas 35 schools were found to have closed climate.
- The sex of the students of the schools and also the qualification of the principals were not found to be determining factors in the organizational climate of the school.
- The management providing good or poor cooperation did not influence school climate in the case of rural and urban areas.
- The members of the management committee having varying qualifications did not influence the school climate.
- The type of stream could not be considered as a factor responsible for types of school climate.
- There is no significant difference between the climates of rural and urban schools.

**Bavakutty (1984)** conducted a study on the organization of libraries in higher educational institutions in Kerala. This study revealed that neither their structure nor their functioning was based on scientific principles.

**Sharma (1982)** analysed the progress and problems of teacher education in India. The aims were to examine the growth and development of teacher education in India and identify the problems. The information was collected in the light of the modern concept of teacher education, the qualities of a teacher, the teacher's role in the modern society and pre-service teacher education programmes.

#### **The main findings were**

- The teacher education programmes had not undergone any marked improvement.
- Methods of teaching and evaluation used in training institutions were traditional.

- There was lack of research data in the field of teacher education and there was immediate need of organizing refresher courses, short term intensive courses in special subjects, practical training workshops and professional conferences.

**Deka (1982)** studied the organization of pre-primary Education in Assam. The findings of the study were:

- There did not exist a definite set of objectives for pre-school education.
- There was no clear policy or direction by the State government in respect of pre-school education.
- A number of shortcomings, including (a) lack of coordination of activities by the pre-school institutions (b) shortage of competent, qualified and trained educational administrators, (c) absence of proper health care (d) lack of congenial environmental conditions (e) inadequate facilities for the training of personnel for pre-school education for long term as well as short term courses (f) high child-teacher ratio (g) non-existence of children's books and teacher's manuals and other teaching aids especially in Assamese language, were revealed.

**Heredia (1981)** studied the Structure and Performance of College Education – An Organizational Analysis of Arts and Science Colleges in Bombay. Some of the major findings of the study were:

- All colleges were affected by financial stress.
- The profile of the college teachers as seen from the study did not categorise the teacher as a professional but rather placed him in the category of a salaried employee constrained by his pedagogic burden.
- The principals influence was seen clearly as dominant in all areas of college organization but only a few enjoyed freedom from the management and support of colleagues to exercise a strong and creative leadership.
- Administrative and academic policy and institutional finance were controlled by the principal and the management.
- The college had a high degree of paternalism and bureaucratization and low professionalism.

**Mishra (1981)** conducted a critical study of Educational Administration and Organization of Traditional Sanskrit Schools in Uttar Pradesh. The major findings of the investigation were:

- There was no significant difference between the administration and organization of A, B, C categories of schools as categorized by the Government.

- More than 70% teachers expressed their resentment regarding the prevalent school administration.
- All the institutional heads and the teachers felt that the grant provided by the Government was not sufficient for the smooth running of the schools.
- Very few schools had hostel facilities and most of the boarders were Swapaki (those who cook their meals).
- More than 75% principals were not satisfied with the present-day curriculum and syllabus prescribed by the Central Sanskrit Board and the Sanskrit Universities.
- An additional training college might be opened which might, however, in the first few years, also undertake training for elementary education, but with primary emphasis on high and higher secondary education in the long run.

**Khera (1980)** studied the Organizational Climate and Educational Environment of Sainik Schools. The major findings of the study were:

- There were wide variations in the educational environment and organizational climate of different Sainik Schools.
- Results on the organizational climate of all the schools revealed that the intensity of these variables differed significantly from school to school.
- The variables of educational environment revealed that no two schools tallied with each other and that they differed significantly on need and press variables, which could be due to the fact that each school head institutionalized various types of public appearances, which were displayed through their students.
- The schools which had high educational environment also exhibited better results in the Higher Secondary Examinations.

**Amarnath (1980)** compared the Organizational Climate of Government and Privately Managed Higher Secondary Schools in Jullundur district. The major findings of the study were:

- The government and privately managed schools, as a group, did not differ significantly in their organization and climate, but it differed from school to school and no two schools had similar organizational climate, which was attributed to the difference in the personality traits of the principals and the teachers.
- The principals of both types of schools did not differ in their behaviour as leaders.

- There was no difference in the dominance of principals' behaviour and teachers' behaviour accounting for variations in the organizational climate of the schools.
- There were no significant differences between the relationship of organizational climate with the job satisfaction of the principals as well as of the teachers of both type of schools.
- The organizational climate of the schools did affect the job satisfaction of the teachers.
- There was no positive relationship between the organizational climate and the academic achievement of the students.

**Patel (1980)** made a critical study of the Higher Secondary School Organization in Gujarat with Special Reference to Vocational Education. The main observations were:

- There was no clear guidance in organizing the higher secondary classes and the frequent change in the policy puzzled the heads.
- As the grant given by the government was too small, good facilities for providing more and more vocational crafts could not be given.

**Sheth (1973)** studied the development, organization, programming and finances of colleges of education in Gujarat State. The methods used were documentary analysis, survey and three case studies of colleges of Education. The tools used were rating scale sheets. He concluded that the staff and students of training colleges that off-campus programme are useful but the present soft policy of examination (reflected in 90 to 100 percent result) is proving harmful to the students in relation to teacher education.

**Bhatnagar (1972)** evaluated the organizational climate of various types of teacher training institutions existing in Uttar Pradesh to study how the organizational climate is related to the institutional effectiveness and to identify the most characteristic environmental features. The hypotheses examined were:

- The organizational climate for a government training college is different from that of other training colleges.
- The organizational climate of rural areas is different from that of urban areas.
- The organizational climate of men's training colleges differs from that of women's training colleges.
- The organizational climate of university departments of education differs from that of affiliated colleges.

- In the non-government teacher training colleges, organizational climate indicated high democracy and freedom and lack of facilities. But in government training colleges, there is high social support, high authoritarianism, high trust, high academic emphasis and high discipline and control.

**Mukherjee (1951)** studied the Role of the State in the Organization of Education in India right from the Pre-Buddhist period to the present day. The specific objectives were to find out how the state took up the cause of education at various periods and how it was instrumental in spreading education to the masses in an organised and systematic way. The study revealed that educational institutions of pre-Buddhist period were fairly well coordinated and depended mainly on public support. During the Buddhist period, royal support became more definite and a system of charging fees from the students came into being. But the organisation of Muslim education followed a more centralised pattern. It followed a more uniform policy as compared to that of Pathan rulers.

### 2.3. STUDIES RELATED TO PLANNING AND MANAGEMENT

The success of any organization depends upon the dynamic and effective leadership of the managers/administrators. Leadership and communication are two basic ingredients for the success and progress of any institution. A manager / administrator should possess some basic qualities for motivating subordinates to achieve certain goals; and goals can only be achieved through successful and clean management. Management in the past was considered to be a global concept incorporating all sorts of activities in the organization. Then the concept of administration captured the central position on the basis of its power of policy decisions. Management was, then, considered to be of secondary importance, incorporating, arranging, controlling and organizing the things and events in an institution.

**Kalai (2006)** made a Study of Educational Management Practices in Secondary Schools and concluded that on the basis of ratings of the management practices on the five management tasks the order from highest to the lowest was found as:

- Student Support and Progression
- Curriculum Transaction and Evaluation
- School Organization and Management
- Curriculum Design and Planning
- Research, Development and Extension

**Sharma (2003)** made a survey on the Management of Human Resources Development of Teachers in Secondary and Higher Secondary Schools of Rajasthan. The major findings were:

- There are many expectations of students and parents with respect to teachers, such as, teachers should conduct career guidance activities, the tests given by the teachers should observe test characteristics, teachers should be more flexible than rigid etc.
- It is a matter of immediate concern that only 4.4% of teachers on roll from sample schools have attended in-service training programmes in their 7-10 years of service and were not satisfied with the same.
- Both teachers and educational experts have perceived shortcoming in management of in-service training programmes.
- No systematic attempts were made to ascertain the needs of the teachers.
- The in-service programmes have been found much below the expectations of students, parents, teachers and educational experts.
- Teachers' motivation in professional development, interest in the teaching job, wish and will to improve school practices are not sustained.

**Samantaray (2002)** studied the Professional Responsibilities among Senior Secondary School Teachers and found that:

- Significantly positive inter-correlation has been found among the three variables, namely, Teachers' Professional Responsibilities, Principal's Instructional Management Behaviour and School Organisational Climate.
- No significant difference has been found between male and female teachers on Instructional Management Behaviour, or Organisational Climate or in developing Professional Responsibilities in teachers.
- The type of institution has been found to have different impact on teachers' professional responsibilities in favour of government schools.

**Pathrikar and Rao (2002)** in their study on 'Educational Institutions in Aurangabad District' concluded that:

- The majority of the institutions (56.45%) have democratic approach.
- 96.77% Society-run institutions are aided institutions.
- 87.63% institutions do not have adequate funds for achieving their objectives.
- More focus is on Primary Education.
- In all the Society-run institutions roster system is followed.

- The Society observes criteria of merit and scholarship for the recruitment of staff.
- Maratha Societies reported outstanding achievements of their institutions in board and university examinations.
- A large majority ( 77.14%) of Maratha Managements give liberty and freedom to a great extent to the Head of Institution for running the institution.
- There is good networking of the institutions run by the Maratha Societies.
- The institutions have reasonable infrastructural facilities.
- The teaching and non-teaching staff belong to different castes and categories.
- In the view of 52% eminent Maratha persons the educational societies are doing very good jobs.

**Tyagi and Singh (2000)** identified that existing arrangements in Gujarat for educational planning need considerable improvement. **Mahajan et al. (1995)** suggested that Educational Planning and Administration in Rajasthan should include adequate professional training to heads of school complexes and heads of institutions, particularly those who are promoted from teaching posts. **Kutty (1995)**, while studying the effectiveness of inspections and supervision at high school level in Mavelikkara Educational District, concluded that separation of supervision and inspection from administration is essential for maintaining the standard. **Chandrika (2002)** examined the issue of planning and management of inclusive schools in Thiruvananthapuram District and suggested that co-ordination committees should be strengthened.

**Kapoor et al. (1994)** in their study on Arunachal Pradesh suggested that opportunities have to be provided to the personnel for exposure to innovative forms of planning and administration. **Palaniyandi (1990)** evaluated the leadership style of heads of higher secondary institutions and schools' effectiveness in Velloor Educational District and found that the leadership behaviour of the heads of higher secondary schools shows a familial trend.

Conclusion of the study made by **Gregory (1986)** on "Effects of Situational Leadership on Organizational Health and Academic Achievement" was that the match between the principals' leadership style and the maturity of his or her faculty did not affect organizational health and academic achievement.

In **Yasin's (1987)** study, "Managers' Different Motivational Profiles due to Culture Based on Managerial Comparison," the Arab culture exhibited higher affiliation, while the American culture exhibited higher power and achievement. Effective Arab managers, regardless of their managerial level, tended to be similar to the American executives in terms of their motivational profile.

**Burrington (1985)** found that widespread dissatisfaction exists with job related experience among administrators. Administrators approach their job with highly specific expectations as to what other administrators and organization should offer in terms of employee's time, talents and effort. Exploration of employee's perspectives concerning job aspects that stimulate / motivate or inspire them in the performance of their function is a vital index to employee's thought and feelings about their job. Administrators contribute to the job motivation of their peers by providing rewards that reinforce the aspirations of fellow administrative employees toward self-actualization, autonomy and responsibility.

**Puskaran (1985)**, while investigating the problems of introducing institutional planning in Thrissur educational district highlighted that school libraries are not properly used.

**Rao (1981)** made a comprehensive study of Educational Administration and management of school system and made the following findings:

- The office of the Commissioner for Public Instruction (CPI) was the unit responsible for policy formulation, planning, implementation and monitoring and control of educational administration in Karnataka.
- Planning function should be strengthened by the creation of a central planning cell at the headquarters under a Joint Director.
- Field organization should be strengthened through proper definition of roles, delegation of powers and decentralization within the existing framework of the organizational structure.
- The position of Education Officer might be created at the district level to lend administrative support to the Commissioner for Public Instruction.
- Training should be given weightage and approached systematically. Training of non-teaching staff was as important as that of teaching staff.

**Boel (1980)** analysed the Kerala Education Act of 1958 and the Related Rules and Regulations. The major findings of the study were:

- The trends which led to the passing of the Kerala Education Act of 1958 were that the Leftist Government had a political intention of

controlling private schools; the Government wanted to adopt a policy of full scale nationalization of private schools; there was widespread discontent among private school teachers regarding service conditions, promotion practices etc.

- Many of the sections in the legislation, despite their pretensions regarding decentralization of educational administration, only showed that there was a pronounced shift towards centralization. The Government authorities were actually invested with greater powers and control over private schools. The idea of individual initiative, basic to democratic educational philosophy, was obscured by the legal frame of state control.

**Dorji (1975)** found that leadership behaviour dimension and pattern were critical indications of organizational climate, staff morale, academic motivation, school innovativeness and academic status. There was no direct relationship between pupil motivation and the leadership behaviour of the principals. All principals of open climate schools manifested HH leadership behaviour pattern. Most of the schools having 'high innovativeness' had principals who manifested the HH and HL leadership behaviour pattern. The leadership behaviour dimensions and patterns were found to be significant in relation to variables of climate, morale and innovativeness but not in relation to pupil motivation, schools and academic status of schools.

**Vyas (1963)** studied the Central Government Role in Indian Education. The objectives of the study were: (i) to investigate the role of the Government of India in the matter of educational policies from 1813 to 1961; (ii) to analyse the factors which influenced the judgement of the government, from time to time, and to identify the principles and practices underlying them; and (iii) to offer suitable suggestions to integrate the role of Government of India with others which are also performing an equally important function in the field.

Some of the observations of the study were: (i) the Government of India in the British period was not directly responsible for its indifference towards education; (ii) the Government of India could not possibly have adopted any other system of education because of lack of suitable machinery, existing divergence of the social systems in India and partly due to its inheritance from Britain; (iii) the roles played by Macaulay, Bentinck, and Curzon in shaping the policies of the government regarding education were misunderstood, but they should be judged in the context of historical and psychological situations of those times; (iv) the foundations of the present educational policies could be traced back to pre-independence

days of the country; (v) the craze for government service not only created vested interests of English knowing people but also over-burdened the curriculum with language studies at the cost of science education; (vi) these policies led to educated unemployment as well as underemployment; and (vii) with the growth of education, there had been an unprecedented multiplication of personnel in the central government.

**Sargurudoss (1961)** in his study *Educational Policy in the Madras Presidency (1800-1900 A.D.)* sought to trace the growth of the educational policy in Madras Presidency in the last century in close relation to its educational history. The policy evolved and enumerated in the 19th century in Madras Presidency was by no means perfect and it was at times halting and half-hearted. The author concluded that the British did endeavour to discharge the obligation to cultivate the intellect, which had been sterile and neglected, though their attempts were greater than the results and the reach was always far higher than the grasp.

One of the earliest studies conducted by **Hemphill (1955)** on association of leadership behaviour of 22 department chairmen with their administrative reputation showed that (1) older and more mature faculty members had a larger proportion of the reputation information than new members of the faculty (2) the reputation of being well-administered was related to leadership behaviour of the department chairman; and (3) larger departments tended to have better treatise reputation than the smaller ones.

**Halpin (1955)** studied leadership behaviour and leadership ideology of educational administrators and aircraft commanders. The conclusion was that the leaders of both type were found to have low relationship between their belief in how they should behave and their actual behaviour as described by their group members, which was found to be significant in relation to variables of climate, morale and innovativeness but not in relation to pupil motivation, schools and academic status of schools.

## 2.4 STUDIES RELATED TO FUNCTIONS

Revision of curriculum, preparation of syllabus and instructional materials, in-service training, research and dissemination and other functions assigned by government should be the functions of SCERT. There are micro-level studies on different aspects of the functions of education.

**Jaixu (2011)** conducted a study on Primary and Secondary School Principal Training Research based on Implicit Wisdom. This paper focuses on a training programme based on implicit wisdom for primary and secondary school principals in China. In spite of great achievements, there

are still some problems in this training programme, such as the majority of training remaining at a low level; there is little consideration of the actual needs of the trainee principals; and, the content of the principal training programme is updated slowly and does not keep abreast of the latest theory and ideas. Over the last two decades, many researchers have turned to the old concept of wisdom. Studies on wisdom can contribute to providing the solutions to the three main issues of principal training. This study applied two methods, the implicit-theoretical method and a case study of training, and reached the following conclusions: First, the implicit wisdom of Chinese primary and secondary school principals contains 13 factors and can be divided into two dimensions: a “Cognitive Dimension” and a “Social Dimension”. Second, based on the factors of implicit wisdom, this study formed a Case Evaluation method to assess the wisdom of principals. Finally, this study established simple procedures for the development of training programmes.

**Pani (2004)** highlighted the following factors regarding the Impact of Continuous and Comprehensive Evaluation at Primary Level in the State of Orissa.

- The CCE has been found to have significant effect on both the scholastic areas, namely, mathematics, language and environmental science, and co-scholastic areas, namely, regularity, punctuality, discipline and cleanliness.
- Area (urban and rural) has been found to have no significant effect on scholastic achievement of class V children.
- Interaction of treatment and area has been found to have no significant effect on scholastic achievement of class V children.
- Area (urban and rural) has no significant effect on achievement of class V children in mathematics.
- Interaction of treatment and area has no significant effect on achievement of class V children in mathematics.
- Area (urban and rural) has no significant effect on achievement of class V children in language.
- Interaction of treatment and area has no significant effect on achievement of class V children in language.
- Area (urban and rural) has no significant effect on achievement of class V children in environmental study.
- Interaction of treatment and area has no significant effect on achievement of class V children in environmental study.

- Area (urban and rural) has no significant effect on performance of class V children with regard to regularity.
- Interaction of treatment and area has no significant effect on performance of class V children with regard to regularity.
- Area (urban and rural) has no significant effect on performance of class V children with regard to punctuality.

While investigating the Job Satisfaction among Secondary School Teachers **Fatima (2002)** arrived at the following conclusions:

- Teachers working at secondary school level have been found satisfied with their jobs to a great extent.
- No significant difference has been found in the degrees of job satisfaction of **a.** Male and female secondary school teachers **b.** Married and unmarried school teachers.
- Teachers working in the schools situated in urban areas have been found more satisfied with their jobs than those working in semi urban areas.
- Urdu medium secondary school teachers working in aided and non-aided schools have been found to have equal degrees of satisfaction.
- In case of Marathi medium teachers the level of job satisfaction was found significantly higher in aided schools than in non-aided schools.
- No significant difference has been found between the English medium teachers of aided and non- aided secondary schools.
- English, Marathi and Hindi medium teachers have been found more satisfied than Urdu medium teachers.
- No significant difference has been found in the degree of job satisfaction between English, Hindi, and Marathi medium teachers.

The study of **Sahoo (2002)** is significant since an attempt has been made to forecast the need for In-Service Education of Primary School Teachers of Tribal Districts of Orissa. The main findings were:

- The study reports that the total intake of teachers for in-service education during 2001-2010 will be approximately 21.17 thousands to 21.80 thousands in the four sample districts as per student population parameter. It is likely to help the planners in planning appropriate inputs needed for in-service teacher education during this decade.
- The teachers have been reported lacking competencies in many areas, such as, conducting dramatization, adopting project method, constructing appropriate evaluation tools, conducting continuous and

comprehensive evaluation, conducting competency based teaching and developing institution based planning.

- They have been found lacking in the areas of identification of learning needs and interest of tribal students.
- The teachers have been largely found lacking competencies in the areas of maintaining records and conducting action research.
- The study has suggested that the in-service teacher education programme should develop the competencies of the teachers in the required areas.

**Chaudhary's (2002)** comparative study on Formal and Non- Formal Methods of Teacher Education for Teaching English reached the following conclusions:

- Most of the responding experts advocated following the formal system of evaluation process of research work.
- Most of the responding experts were in favour of providing flexibility with respect to age, jurisdiction, teaching experience and time duration but opposed to providing flexibility with respect to qualification for admission.
- Most of the experts were of the view that different programs for different groups may not be feasible. However different inputs may be designed bearing in mind the context.
- Most of the experts were found against limiting the seats in distance teacher education programmes.
- A few of the responding experts held that the number of seats should be decided depending upon the jurisdiction of the concerned university, the HRD needs of teachers in the school system in the concerned State, the infrastructure and organizational capacity of the university and the capacity of the conventional teacher education institutions in the State to support the programme delivery.

**Paneer (2002)** while studying the impact of DIET's in-service training to primary teachers on classroom processes suggested that latest educational technology should be introduced and followed.

**Kapoor (2001)** made a study on development and validation of in-service training curriculum for primary school headmasters of Delhi and concluded that:

- The participants of training programme were found to have positive attitude towards the programme.
- Major functions performed by the headmasters were found as work distribution, procuring and maintenance of equipment, maintenance



of discipline, house keeping, beautification of school campus and management of physical resources.

- Most of the educational administrators expressed that the headmasters lacked the skills and knowledge of appropriate communications with parents, community members and different government departments concerned with primary schools.
- Headmasters gave major emphasis to conducting educational surveys, admissions, preparation of time table, organizing co-curricular activities and institutional planning.
- The training needs perceived by most of the educational administrators and headmasters were related to maintaining appropriate human relations, stress management, conflict resolution and group dynamics.

**Rao's (2001)** study on Development of In-service Training Programme in Navodaya Vidyalaya revealed the fact that the performance of the institutions is satisfactory, whereas, some ( 16.35%) of the members are not satisfied with the performance of the institutions.

**Tyagi and Singh (2001)** stressed the need to open research and development units in all sectors of education in Manipur.

**Sinha et al. (1997)** suggested that in Himachal Pradesh emphasis should be on improving teacher competence and motivation. According to **Sinha et al. (1999)** what is needed in Assam is the participation of the community in the decision making process at grass root level. For this purpose SCERT and DIETS should organize programmes.

**Kamalmaney (1997)** examined the impact of in-service training programme for headmasters of primary schools in Alappuzha district and identified that the performance of a headmasters who had undergone training is significantly higher in planning, managing and mobilizing community, decision making while arising problems. **Ravi (1996)** stresses the training needs of primary school headmaster in the context of District Primary Education Programme of Kasaragod district.

**Sinha et al. (1996)** studied the Educational Administration in Tripura and found that SCERT in Tripura is giving training in different aspects of education and highlighted that to cope with the work pressure on education department, the administrative machinery should be strengthened and work apportioned to different directorates - each being allotted special areas of education to cater to different functions.

**Mahajan et al. (1995)** insisted that, in Sikkim, training both pre-service and in-service need to be made compulsory and the state has

accordingly to provide facilities for training of different categories of teachers. **Mahajan et al. (1995)** suggested that teachers of Lakshadweep should be given some kind of orientation before they take up the job. **Unnikrishnan (1995)** identified that teachers in Kasargode district do not get any chance for improvising teaching and learning process.

**Jayaraman (1995)** while studying the availability of ET materials and utilization in teaching of science in secondary schools of Chengappatta MGR District of Tamil Nadu suggested that proper training must be given to the teachers to handle audio visual equipments. **Mahajan et al. (1995)** stressed the need for upgrading the academic as well as professional competence of teachers and supervisory personnel in Chandigarh.

**Sinha et al. (1994)** stressed the need to strengthen SCERT. For that purpose faculty should comprise of expert personnel with professional skills. Besides conducting research in different aspects of education, it should be entrusted with the responsibility of preparation, finalization, development and evaluation of textbooks, leaving the job of publication and printing of textbook to the state textbook cooperation.

**Jain (1991)** made an in-depth study of the functioning of Andhra Pradesh Open University. She found the student services were poor, though the courses were economical. **Mahajan et al. (1994)** suggested that Directorate of SCERT, Karnataka provide necessary resource support by organizing the training of key persons and development of relevant materials in collaboration with NCERT, RCE and other agencies.

**Ranganathan (1991)** while examining the scope of developing a plan for in-service education of Elementary Teachers at district level in Tamil Nadu, identified that we have to evolve a system of ISTE in India in such a manner that every teacher irrespective of his level may get sufficient opportunity for his (her) professional growth.

**Mallaya (1986)** conducted a study in order to find out the modern trends in the teacher training programme and the problems of teacher training in Madhya Pradesh. The study revealed that the existing teacher training facilities at the primary and secondary levels could be made more effective. **Sindhi (1984)** studied the Structure and Functioning of Colleges in Punjab. The study revealed that there was no representation for teachers in college managing bodies in Punjab.

**Sharma (1971)** conducted a study in order to investigate the present educational, professional and economic status of teacher education in science, to study the procedure of recruitment and service conditions of teacher educators and also to investigate the professional needs of

in-service teacher educators of Madhya Pradesh and Maharashtra. He established the need for

- A well-equipped library with latest literature in the field of education and research.
- Facilities for attending meetings of professional organizations.
- Developing skills in supervision of teaching and in the preparation of teaching aids.
- Provision for academic tours and study leave.

### CONCLUSION

Most of the studies related to administration stressed the need to strengthen the institution in terms of infrastructure and organizational arrangements to enable it to carryout its functions and responsibilities. Some studies related to planning and management identified that existing arrangements in educational planning need considerable improvement. They also revealed that adequate professional training is needed by the heads, particularly those who are promoted from teaching posts. Studies related to functions revealed that some drastic changes should be made in areas like curriculum, evaluation, teacher training and research. They also pointed out that the teacher education programmes had not undergone any marked improvement. The training programmes were inadequate in terms of content, duration and practice teaching. The programme also failed to instil leadership qualities in trainers.

All these studies reviewed clearly indicate that the existing system is insufficient. There is an urgent need for revamping and restructuring the organizational and functional aspects.

## CHAPTER III METHODOLOGY

---

### 3.1 INTRODUCTION

The procedure adopted by the researcher in conducting a research is methodology. In other words, methodology is the science of appropriate modes and order of procedure. The nature of the methods followed determines the success of the research. According to Chaplin (1968), “it implies the special procedures utilized in the investigation of facts and information of concepts from the point of view as stated. Methodology is the formulation of methods to be used in the search for knowledge. It is the method applied in a particular investigation”.

### 3.2 METHODS ADOPTED FOR THE STUDY

The researcher has utilized both conventional and qualitative approaches of research. For analyzing data of educational research, usually there are three basic methods viz. historical, survey or descriptive and experimental. For the present study, analytical cum survey methods is followed.

#### 3.2.1 Survey Method

The survey method deals with the present and attempts to determine the status of the phenomena under investigation. Survey is very useful in social science research. In the field of humanities, since the population is very wide, experimentation is usually very difficult and time consuming. Many research problems require systematic collection of data from population or samples of population through personal interviews or other data gathering devices. These studies are usually called surveys, especially when they are concerned with large or widely spread groups of people.

Mouly (1970) said: “No category of educational research is more widely used than the type known variously as the survey, the normative survey, status survey and the descriptive research. This broad classification comprises a variety of specific techniques and procedures, all similar from

the standpoint of purpose i.e. to establish the status of the phenomenon under investigation". According to Best (1977) "Descriptive research describes 'what is', it involves description, recording, analysis and interpretation of conditions that now exist. It involves some type of comparison or contrast and may attempt to discover relationships that exist between existing non-manipulated variables." Since it is a comparative state level study dealing with contemporary issues in the two institutions, the investigator resorted to the 'Survey method' for the present study.

### 3.3 POPULATION OF THE STUDY

Faculty members from both SCERT Kerala and DTERT Tamil Nadu, school teachers of both Kerala and Tamil Nadu, Directors of SCERT and DTERT, Directors of SSA in Kerala and Tamil Nadu and the Principals of DIETs of Kerala and Tamil Nadu constitute the population of the study.

### 3.4 SAMPLE OF THE STUDY

The present study deals with the comparison of the organizational structure and functions of both SCERT Kerala and DTERT Tamil Nadu. The Investigator has used Analytical cum Survey technique for conducting the study.

Three types of questionnaires were used in the present study. The Investigator identified a senior faculty member each from SCERT Kerala and DTERT Tamil Nadu with the consultation of the Directors to get facts regarding the organization and functions of both these institutions. One senior faculty member having above ten years of experience in the respective institutions was selected and the questionnaire I (Questionnaire to the senior faculty of SCERT and DTERT) was administered to these faculty members for getting valid data. Census method was used for collecting data using questionnaire II (Questionnaire to the faculty of SCERT and DTERT). In SCERT Kerala, there are 22 faculty members and in DTERT there are 16 faculty members. All the faculty members of both the institutions were selected for getting data regarding the organization and functions of SCERT and DTERT. Questionnaire III (Questionnaire to teachers) was used for collecting data from the beneficiaries of SCERT and DTERT. By using random sampling technique, 200 teachers from upper primary level as beneficiaries of SCERT and DTERT were selected from one District each of both Kerala and Tamil Nadu. From Kerala, Thiruvananthapuram district and from Tamil Nadu, Kanyakumari district were selected for gathering data from teachers. While selecting sample, due representation

was given to teachers of government and private aided schools, male and female teachers from both Kerala and Tamil Nadu.

The faculty members of the Non-formal education Department of SCERT Kerala and DTERT Tamil Nadu, Directors of both SCERT Kerala and DTERT Tamil Nadu, State Project Directors of SSA of both Kerala and Tamil Nadu and the principals of DIET of Thiruvananthapuram and Kanyakumari form another sets of sample of the study.

### 3.5 TOOLS AND TECHNIQUES USED FOR THE STUDY

There are different types of tools for research such as Questionnaire, Interview, Interest Inventory, Rating Scale, Checklist and Opinionnaire. Selection of tools depends upon the nature of the problem, objectives of the study and the kind of data necessary for the solution of the problem. After studying the characteristics and advantages of different tools, the Investigator selected those mentioned below.

Three types of questionnaires and five interview schedules were utilized for collecting data.

- Questionnaire I; To collect data from the senior faculty of SCERT Kerala and DTERT Tamil Nadu.
- Questionnaire II; To collect data from the faculty of SCERT Kerala and DTERT Tamil Nadu.
- Questionnaire III; To collect data from the beneficiaries (school teachers from upper primary level) of SCERT Kerala and DTERT Tamil Nadu.
- Interview schedule A; To collect data from the Non-formal education faculty of both SCERT Kerala and DTERT Tamil Nadu.
- Interview schedule B; To collect data from the Directors of SCERT Kerala and DTERT Tamil Nadu.
- Interview schedule C; To collect data from the State Project Directors of SSA Kerala and Tamil Nadu.
- Interview schedule D; To collect data from one DIET Principal each from Kerala and Tamil Nadu.

In addition to the tools mentioned above, relevant documents from SCERT and DTERT were also used for collecting the facts regarding the organization and functions of these institutions. Following are the documents used for the study.

- Memorandum of Association of SCERT
- Annual reports of SCERT

- Budget plan of SCERT
- Annual reports of DTERT
- Budget plan of DTERT

### 3.6. DEVELOPMENT OF TOOLS

Different types of tools were used for collecting data. Questionnaire and interview schedule are the major tools used in the study.

#### 3.6.1 Questionnaire

A questionnaire is a device consisting of a series of questions dealing with certain psychological, social and educational topic(s) given to an individual or group of individuals with the objective of obtaining data with regard to the problem under investigation. It is a device for securing answers to a series of questions by using a form which the respondent fills up by himself. "Questionnaire is a systematic compilation of questions that are submitted to a sampling of population from which information is desired" (Barr and Johnson, 1953). It is widely used in educational research to obtain information about certain conditions and practices. It is classified under the title 'inquiry forms.'

In the present study three questionnaires were used for collecting data.

##### 3.6.1.1 The Process of Developing Questionnaire

The Investigator had attained a thorough grasp of the subject area under study and a clear understanding of the nature of the data required. In order to prepare the draft questionnaire, the Investigator referred to all the available related literature and studies carried out earlier along with several journals, articles and dissertations. The questionnaire was decided to arrive at thorough information regarding the role of SCERT Kerala and DTERT Tamil Nadu. Three sets of questionnaires were designed for collecting data, one from the senior faculty members of SCERT and DTERT, another from all the faculty members of both SCERT and DTERT and the third one from the beneficiaries of SCERT and DTERT. They were asked to furnish the details regarding the structure and functions of both the institutions to arrive at a comprehensive conclusion.

The Investigator collected the information about the organization and functions of SCERT Kerala and DTERT Tamil Nadu from the reports and guidelines of NCERT, SCERT and DTERT. Consultations had been carried out with the experts from University of New Delhi, Central University, Pondicherry, Mahatma Gandhi University, Kottayam, Kerala, University

of Kerala, officials from NCERT, SCERT, DTERT and other educational experts. (List of experts is given in Appendix 1). Personal experience from the field of education was of advantage in developing the questionnaire. In order to elicit the different aspects of the organization and functions of SCERT Kerala and DTERT Tamil Nadu, draft questionnaires were developed.

##### 3.6.1.2 Description of the Questionnaire to the Senior Faculty

This questionnaire was used to collect the responses from the senior faculty members of both SCERT Kerala and DTERT Tamil Nadu regarding the organization as well as the functional aspects of these institutions.

The questionnaire consists of three parts. Part A, B and C.

##### Part A: Profile of the Sample

This part is meant for collecting personal data from the respondents. They were asked to furnish the details regarding the name, age, sex, qualification, experience in SCERT/ DTERT and total experience.

##### Part B: Organizational Structure of SCERT and DTERT

This part is meant to collect data regarding the administration and the organizational structure of SCERT Kerala and DTERT Tamil Nadu. Part B contains 45 questions. Out of 45, all questions are of closed types.

##### Part C: Functions of SCERT and DTERT

Part C is meant to collect data regarding the role and functions of SCERT Kerala and DTERT Tamil Nadu. This part contains 28 questions. Here the respondents are asked to express their views regarding the role and functions of different areas of these two institutions.

A specimen copy of the questionnaire is given in appendix II.

##### Sample for the Questionnaire

The sample for the administration of the questionnaire comprises of one faculty member each from SCERT and DTERT. In order to get a comprehensive view of the organization and functions of SCERT Kerala and DTERT Tamil Nadu, the Investigator selected a senior faculty from each of the institution in consultation with Directors and administered the questionnaire among them. They positively responded to the questionnaire, which served to arrive at a clear idea regarding the organization and functions of SCERT Kerala and DTERT Tamil Nadu.

### 3.6.1.3 Description of the Questionnaire to the Faculty

This questionnaire was also used to collect the responses from all the faculty members of SCERT Kerala and DTERT Tamil Nadu regarding the functional as well as the organizational aspects of these institutions.

The questionnaire has six parts: part A, B, C, D, E and F.

#### Part A. Profile of the Sample

This part of the questionnaire is used for collecting personal data from the respondents. They were asked to furnish the details regarding name, age, sex, designation, experience in SCERT/DTERT and total experience in service.

#### Part B

Part B of the questionnaire focussed on their views regarding the organizational pattern of the institutions.

They were asked to furnish their opinion regarding the present legal status of institution, staff pattern, physical conditions they enjoyed in their institutions etc.

#### Part C

This part of the questionnaire intends to collect data regarding the functions of each institution. They were asked to furnish the data regarding the activities/programmes that are going on in their department. They were also asked to write their opinion about the taking over of duties presently performed by other institutions and vice versa, the materials produced from their department, the training they provide etc.

#### Part D

This part tries to collect opinion regarding the academic growth and development they get from their institution. The respondents were asked to note down their opinion regarding the opportunity they get to carry out the research programmes, the chances for publishing the reports of the research projects they carried out, the opportunity for faculty improvement etc.

#### Part E

This part of the questionnaire is meant for collecting data regarding the job satisfaction they enjoy in their institution. For this purpose a number of questions were asked to the respondents like the salary allowances and perquisites, the service conditions etc.

#### Part F

This part of the questionnaire is for getting their suggestions to improve their respective institution. The items that are needed for their professional growth, the highlighted plus points and limitations are the main questions asked to write freely in this session. Necessary space is given to write down their responses.

A specimen copy of the questionnaire is given in appendix III

#### Sample for the Questionnaire

The sample for the administration of the questionnaire comprised of 22 faculty members from SCERT Kerala and 16 faculty members from DTERT Tamil Nadu. All the respondents from their institutions showed a positive approach for furnishing the data in the questionnaire.

### 3.6.1.4 Description of the Questionnaire to the Beneficiaries

To elicit responses from the beneficiaries of SCERT Kerala and DTERT Tamil Nadu, another questionnaire was developed. It contained 55 questions under 17 main areas. The questionnaire was devised to get a holistic idea regarding the activities and functions of SCERT and DTERT and how far these activities are benefited to the actual field teachers for their classroom processes or transaction.

The questionnaire has 17 parts including the personal data of the respondents.

#### Part I - Profile of the Sample

This part of the questionnaire is for collecting personal data from the respondents. They were asked to furnish the details regarding name of the teacher, sex, age, designation, name of school, educational qualification and total teaching experience.

#### Part II - Curriculum

This part of the questionnaire is used to know the role and participation in the curriculum preparation process of respective states. Five questions were included in this part.

#### Part III – Textbooks

This part of the questionnaire is used to know the role and participation in the textbooks development process of respective states. Here also 5 questions were asked to furnish. The opportunity to participate in the textbook

developing processes of the state, their awareness about the textbooks before and after implementation etc. were the main questions asked in this part.

#### **Part IV - Training**

Eight questions are included in this part to elicit the responses about the general trend of the training programme they received. The agency that arranges training to teachers in respective states, the areas in which they get training, the quality of the training etc. were the questions they were asked to furnish.

#### **Part V - Training - Classroom Transaction**

This part of the questionnaire is intended to obtain data regarding different aspects on training in classroom transaction.

#### **Part VI - Training - Content Enrichment**

This part is for getting data related to the training that teachers received on the content part of the textbook. The respondents were asked to furnish about the chance of getting training on content and the periodicity of the training.

#### **Part VII - Evaluation**

In this part, the respondents were asked about their involvement in the formulation of evaluation strategy of their state, their competency to evaluate the child etc.

#### **Part VIII- Professional Growth**

This part is allotted for collecting the opinion about the preparation needed for the academic growth of the respondents. The respondents were asked to furnish the materials they need other than their professional qualification, any other training or course they expect for improving teaching skills etc.

#### **Part IX – Special Education**

In this area, the respondents were asked to furnish details regarding the training they received on the area of special education.

#### **Part X- Non-formal/Adult Education**

Implementation of Non-formal /Adult education programme of respective states are sort out in this part. The respondents were asked to furnish the details regarding the implementing agency of Non-formal

education, their role in the propagation of Non-formal education in respective states, the quality of training they received etc.

#### **Part XI -Educational Technology**

In this area they were asked to furnish their chances for the utilization of the modern technological equipments in the classroom and the agency that help them to get knowledge in this area.

#### **Part XII - Research**

This part is for collecting data regarding the research experience and aptitude of the respondents. Ten questions were asked to be furnished by the respondents. This includes their participation in the Educational Research programmes of their state, the chance of getting the journal of respective institutions, chance of doing action research and the agency that help them doing action research etc.

#### **Part XIII- Materials Developed by SCERT and DTERT**

Materials prepared by the SCERT Kerala and DTERT Tamil Nadu are sort out in this part. The respondents were asked to furnish whether they get the materials prepared by these institutions in proper time.

#### **Part XIV - Co-curricular Area**

This part is to know whether these two institutions are doing any activities for the development of co-curricular and extra-curricular activities of the children of respective states. The respondents were asked to furnish data about their chances to improve the co-curricular and extra-curricular activities of learners, the chances for evaluating it and whether they get any training in this area etc.

#### **Part XV -Value Education**

This part is also for collecting data to know whether SCERT and DTERT provide any value-oriented education to the children of respective states. For this purpose, two questions were asked to the respondents: the chances in curriculum for providing value education and the method they receive for propagating value education.

#### **Part XVI - Library**

This part tries to know the involvement of the teachers in the library of SCERT and DTERT. The respondents were asked 3 questions to furnish like the membership in Library, their chances to make use of the library etc.

## **XVII - Direct Involvement of the Respondents with SCERT and DTERT**

This part checks the involvement of the respondents with the activities of SCERT and DTERT. Seven items are provided and the respondents have to put tick mark against the correct responses.

A specimen copy of the questionnaire is given as appendix IV.

### **Sample for the Questionnaire**

The sample comprised of 300 teachers from one revenue district of Kerala and Tamil Nadu. But despite repeated interventions and suggestions, only 208 teachers from Kerala and 202 teachers from Tamil Nadu responded in a proper way. Thus 200 teachers each from both states formed the sample of the study. While selecting sample due representation was given to teachers of government and private aided schools, male and female teachers from both Kerala and Tamil Nadu.

#### **3.6.1.5 Tryout of the Questionnaire**

The prepared questionnaires were given to experts for comments. The tryout of the questionnaire was carried out both in Kerala and Tamil Nadu to check the validity, reliability and practicability of the tool. The questionnaire was administered among faculty members of SCERT Kerala and DTERT Tamil Nadu. One questionnaire was also administered among the teachers of upper primary section within Kerala and Tamil Nadu. Appropriate modifications were effected on the basis of the feedback from the above processes. Approach, style, content, structure and answering pattern were modified according to the results obtained from the tryout. By taking the opinion of the faculty members and teachers, the Investigator got new insight on other aspects which are not considered as specific. An unstructured interview was also carried out among these faculty members.

After collecting the essential data, the Investigator had gone through the filled up questionnaire and found out certain new parts to be added in the final questionnaire. Based on the pilot study and consultation with experts, the final form of the questionnaires have been formulated, after deleting and adding some of the items from the tryout.

#### **3.6.1.6 Validity and Reliability of the Questionnaire**

Validity of a scale is defined as the accuracy with which it measures what it is intended to measure whereas Reliability of a test is defined as

the degree to which it measures consistently or accurately whatever it does measure (Travers, 1959).

Mouly (1970) states: "At the most elementary level, it is necessary for all questionnaires to have content validity, i.e., a question must be related to the topic under investigation, there must be an adequate coverage of the overall topic, the questionnaire must be clear and unambiguous." While constructing the questionnaire, maximum care was taken to meet these requirements. All precautions to be taken in the construction of a questionnaire were observed to the maximum extent possible. Thus for ensuring validity of the questionnaire, ambiguous statements were either removed or modified wherever necessary. The content validity of the items was ensured by checking each and every item in the questionnaire and effecting necessary modifications. The adequacy of the questionnaire items in terms of the coverage, relevance and clarity was discussed with educational experts. The reliability of the questionnaire was ensured by conducting informal interviews with some of the experts for checking the reliability of the responses obtained through the questionnaire.

#### **3.6.2 Interview Schedule**

Interview is a process of communication or interaction between the interviewee and the interviewers which facilitate the required information viably in a face to face situation. In the present study, interview was used as a technique for gathering data required for the study by the researcher. In order to find out the functions carried out by the Non-formal education wing of both the institutions, a structured interview was conducted among the faculty members. Another structured interview was conducted among different officials of education department viz. Directors of SCERT Kerala and DTERT Tamil Nadu, SPD of SSA Kerala and Tamil Nadu and Principals of DIET of both Thiruvananthapuram and Kanyakumari district. A series of questions were prepared by the Investigator but the number of questions were limited in consultation with the educational experts.

Number of schedules prepared for the interview are

- (A) To the Non-formal education faculty of SCERT and DTERT.
- (B) To the Directors of both SCERT and DTERT.
- (C) To the State Project Directors of SSA Kerala and Tamil Nadu.
- (D) To the Principals of DIETs.

List of officials interviewed is given in appendix V.

### 3.6.2.1 Interview Schedule to the Non-formal Education Faculty of SCERT and DTERT

This interview was intended to collect data regarding the role played by the faculty members of both the institutions. The respondents were asked about the organizational pattern of the concerned department, funding agency, main activities carried out by the department. Eleven questions were asked and the data thus gathered was used for analysis.

A specimen copy of the interview schedule is given in appendix VI.

### 3.6.2.2 Interview Schedule to the Directors of SCERT and DTERT

In order to elicit more facts regarding the organizational and functional aspects, about 27 questions were asked to the Directors of respective institutions. These 27 questions were divided into 4 heads; Academic activities-General, Academic activities- Textbooks, Academic administration and General administration.

A specimen copy of the interview schedule is given in appendix VII.

### 3.6.2.3 Interview Schedule to the State Project Directors of SSA Kerala and Tamil Nadu

In order to draw the main academic activities done by SSA of corresponding state and their academic collaboration with SCERT and DTERT, the Directors of both states were asked 11 questions.

A specimen copy of the interview schedule is given in appendix VIII.

### 3.6.2.4 Interview Schedule to the Principals of DIETs

Thiruvananthapuram and Kanyakumari are the DIETs selected from Kerala and Tamil Nadu respectively for this interview. The information regarding the activities of DIETs, the level of control over teacher training, area of concentration in teacher training, academic linkage with SCERT and DTERT, etc. is elicited through this process. Eleven questions are included in this part.

A specimen copy of the interview schedule is given in appendix IX.

### 3.6.3 Analysis of Documents

Analysis of documents was done to get more accurate and specific facts regarding the organization and functions of SCERT Kerala and DTERT Tamil Nadu. The documents analysed for these purpose were annual reports of SCERT, memorandum of association of SCERT, budget plan of SCERT, annual reports of DTERT and budget plan of

DTERT. Certain criteria were formulated for analysing these documents. The data obtained from these documents were also used for detailed analysis.

The criteria used for the analysis of documents is given in appendix X.

### 3.7. PROCEDURE OF DATA COLLECTION

Three questionnaires were used to collect data. All the three questionnaires were administered in a systematic order. Data collection using the questionnaire I and II from the officials of SCERT Kerala were collected directly by the Investigator. The data from the upper primary teachers of Kerala (Questionnaire III) had been collected by a visit to the training centres of upper primary classes by the Investigator herself. Both in Kerala and Tamil Nadu the Investigator visited both government and aided schools. After established rapport with the respondents, they were given a thorough direction to fill up the questionnaire. For the effective implementation of the questionnaire the Investigator translated this questionnaire to the regional language of the respondent. The Investigator spent the whole day in the school and gave certain suggestions and directions occasionally. Eighty percent of the data were collected through that way and the rest were collected by post (through self addressed stamped envelope to teachers). About 208 data were collected in this manner.

In order to collect data through interview from the Director SCERT, State Project Director of SSA, Kerala, principal of DIET Thiruvananthapuram and the Non-formal education faculty of SCERT, the Investigator fixed an appointment with these officials. Investigator asked the questions one by one and noted the responses. Investigator interacted with the respondents as and when required.

For collecting the data through the questionnaire I and II from DTERT Tamil Nadu, the Investigator visited the institution and stayed there for one week. To avoid delay and maintain the secrecy of the data, the Investigator personally approached and explained the objectives of the study. After giving proper directions, the tool was administered among the faculty members of DTERT. Three day duration was given to the respondents for proper filling up of the questionnaire. The Investigator interacted with the respondents when and where it was necessary. The duly- filled questionnaires were then collected for analysis. All the questionnaires from DTERT were collected during that time itself.

Another visit was made to Kanyakumari district for collecting data from teachers from upper primary classes (For questionnaire III). For



getting valid data, Tamil version of the questionnaire was administered to the respondents. Fifty percent of the questionnaires were collected on the spot. The rest of the questionnaires were collected by post (through self addressed stamped envelope to teachers). About 202 data were collected in this manner.

In order to collect data through interview from the Director DTERT, State Project Directors of SSA Tamil Nadu and principal of DIET Kanyakumari, the Investigator made an advance appointment with these officials. The objective of the visit was explained to them and their responses were collected for analysis. While talking to the Director DTERT, the Investigator came to know that there is no particular department and faculty member in the area of Non-formal education.

All the data collected through the questionnaires and interviews were analysed in a systematic manner.

### 3.8 TIME SCHEDULE FOR DATA COLLECTION

Preparation of tool	-	August-September 2009
Try-out	-	March 2010
Finalization of tool	-	May 2010
Administration of tool	-	September 2010 - March 2011

### 3.9 STATISTICAL TECHNIQUES USED

The data collected was consolidated for statistical analysis. Statistical techniques like Percentage Analysis, 'Z' test and 'Chi Square' test were used for the present study.

## Chapter-4

### ANALYSIS AND INTERPRETATION OF DATA

Analysis and interpretation of data are two major steps in the process of research. "Analysis of data means studying the tabulated material in order to determine the inherent facts or meaning" (Sukhia, 1983). "It involves breaking down the existing complex factors into simpler parts and putting the parts together in new arrangements for the purpose of interpretation. The purpose of interpretation is essentially one of stating what the results show" (Good et al., 1952).

The present investigation is aimed at studying the organization and functions of two institutions ie, SCERT Kerala and DTERT Tamil Nadu. The tools used for the purpose were 3 sets of questionnaires and 4 sets of interview schedules. A questionnaire (Questionnaire: I) was administered to a senior faculty member each from SCERT Kerala and DTERT Tamil Nadu (N = 2), another questionnaire (Questionnaire: II) was administered to all the faculty members of both the institutions (N = 16 + 22), the third questionnaire (Questionnaire: III) was administered to the beneficiaries of these two institutions (N = 200 + 200) and interview schedules were administered to the Non- formal education faculty members of both the institutions, the Directors of both SCERT and DTERT, State Projector Directors of Sarva Siksha Abhiyan, Kerala and Tamil Nadu and the Principals of DIET of Trivandrum District in Kerala and Kanyakumari District in Tamil Nadu. In addition to these tools, documents from SCERT and DTERT were also analysed.

The data collected through the questionnaires was analyzed using appropriate statistical techniques. The analysis carried out and the discussions of the results are presented here under the following heads.

- 4.1 Analysis of the documents of SCERT and DTERT.
- 4.2 Analysis of the responses to the questionnaire for senior faculty of SCERT and DTERT.
- 4.3 Analysis of the responses to the questionnaire for the faculty of SCERT and DTERT.

4.4 Analysis of the responses to the questionnaire for the beneficiaries of SCERT and DTERT.

4.5 Analysis of the interview with Non- formal education faculty of SCERT and DTERT.

4.6 Analysis of the interview with the Directors of SCERT and DTERT.

4.7 Analysis of the interview with the State Project Directors of SSA Kerala and Tamil Nadu.

4.8 Analysis of the interview with the Principals of DIETs.

The details of the analysis carried out under each session are presented below.

#### 4.1 ANALYSIS OF DOCUMENTS OF SCERT AND DTERT

This part is used to explore more details regarding the organization and functions of SCERT Kerala and DTERT Tamil Nadu. For this purpose the Memorandum of Association of SCERT, annual reports of SCERT and DTERT, budget plan of SCERT and DTERT etc. have been analysed. Certain criteria have been formulated for analysing these documents. On the basis of these criteria, the evolution of SCERT and DTERT, the aims and objectives of both the institutions, the organizational pattern of both the institutions, the linkage of these institutions with other organizations etc have been elicited. The following facts have been codified from these materials.

##### 4.1.1 Evolution of SCERT and DTERT

The following table explains the brief history of the evolution of SCERT Kerala and DTERT Tamil Nadu.

**Table 4.1: Evolution of SCERT and DTERT**

SCERT	DTERT
<ul style="list-style-type: none"> <li>The State Institute of Education(SIE) Kerala was established in 1964 under the department of General Education.</li> <li>In 1994, SIE was upgraded into SCERT as per GO (P) No 116/94/ GEdt/04.07.1994. SCERT Kerala is a registered society under the Travancore Cochin Literary, Scientific and Charitable Societies Act of 1995.</li> </ul>	<ul style="list-style-type: none"> <li>In Tamil Nadu the State Institute of Education (SIE) was established in 1965 to provide for systematic study of problems related to School Education under the administration of Directorate of School Education.</li> <li>In 1970, SIE was upgraded as State Council of Educational Research and Training (SCERT).</li> </ul>

SCERT	DTERT
<ul style="list-style-type: none"> <li>Kerala SCERT is an autonomous body under the control of state government.</li> <li>According to Memorandum of Association (MOA), all members of General body and Governing body are either government officials or persons nominated by the government.</li> <li>The Honourable Minister for Education is the Chairman of the General and the Governing Body of SCERT.</li> </ul>	<ul style="list-style-type: none"> <li>In 1990, the Government of Tamil Nadu created the Directorate of Teacher Education Research and Training (DTERT) by orders wide G.O.748, Education (F2) Department, dated 04.06.1990. The SCERT was renamed as DTERT.</li> <li>All Teacher Training Institutions including Private, Aided / Unaided Teacher Training Institutions were brought under its control.</li> <li>DTERT became a separate Unit in the year 1999. The entire academic faculty members in the DIETs and DTERT have been separated from the Directorate of School Education and inducted into DTERT service vide G.O.No.106, School Education Department, dated 11.03.97.</li> </ul>

From the Table 4.1 it is revealed that both in Kerala and Tamil Nadu, SIE was established in the year 1964 and 1965 respectively. Subsequently in the year 1970 and 1994, the SIEs of Tamil Nadu and Kerala are converted into SCERT. But in Tamil Nadu, SCERT was reconverted into DTERT in the year 1990. In Kerala, SCERT is an autonomous body registered as a charitable society under the control of the State Government. But DTERT is under the direct control of State Government. The Honourable Minister for Education is the Chairman of the Governing Body of SCERT but DTERT is governed by the State Government.

##### 4.1.2 Aims and Objectives of SCERT and DTERT

The functioning of the SCERTs during the last couple of years has shown several encouraging trends, establishing them as leading institutions capable of transforming quality in school education. The major objectives of SCERT and DTERT are given in the following table.

**Table 4.2: Objectives of SCERT and DTERT**

SCERT	DTERT
<ul style="list-style-type: none"> <li>To advise the state government on policies and programmes for enhancing quality in school education.</li> </ul>	<ul style="list-style-type: none"> <li>To develop curriculum, syllabus, and textbooks of school education.</li> </ul>

SCERT	DTERT
<ul style="list-style-type: none"> <li>To undertake, aid, promote and coordinate researches in areas related to school education.</li> <li>To develop curriculum, prepare textbooks, supplementary educational materials, newsletters, journals and other related literature from pre-primary to higher secondary level.</li> <li>To organise pre-service and in-service training for teachers up to higher secondary level.</li> <li>To develop and disseminate innovative educational techniques and practices.</li> <li>To collaborate and network with education departments of other states, universities, NGOs and other educational institutions.</li> <li>To act as a clearing house for ideas and information in matters related to school education.</li> <li>To act as a nodal agency for universalization of school education.</li> </ul>	<ul style="list-style-type: none"> <li>To improve the quality of education of primary and upper primary teachers through pre-service and in-service teacher training.</li> <li>To develop innovative practices in evaluation to assess the level of children.</li> <li>To undertake action research and short term research projects related to school education.</li> <li>To equip teachers with latest technologies.</li> <li>To provide value orientation.</li> <li>To organize state and district level workshops and seminars for empowering teachers.</li> </ul>

Table 4.2 reveals that both SCERT and DTERT play very crucial roles in school education and are the most important institutional mechanism for assisting the government in formulating and implementing policies related to school education. The major functions performed by both these institutions are formulating curriculum and syllabus, preparation of textbooks, pre-service and in-service training to teachers and research in education. In the aims and objectives of SCERT, it is expressively stated that the main function of SCERT are 'to provide advice the state government on policies and programmes for enhancing quality in school education and to act as a clearing house for ideas and information in matters related to school education'. Both SCERT and DTERT give due importance to research based activities. It is pertinent to note that DTERT is concentrating only up to upper primary level with regard to teacher training. But SCERT extends its activities from pre-primary to higher secondary level. So it is interpreted that both SCERT and DTERT are performing well in the area of school education, the objectives of SCERT is wider than that of DTERT.

#### 4.1.3 Organizational Pattern of SCERT and DTERT

In order to get the organizational pattern of SCERT and DTERT, the documents of these two institutions were analyzed. The details regarding the organizational pattern of both SCERT and DTERT are given.

##### 4.1.3.1 Organizational Pattern of SCERT

The organizational pattern of SCERT is divided two main heads: Academic and administrative wing. Pictorial representation of the organizational structure of SCERT is given in Fig. 4.1.

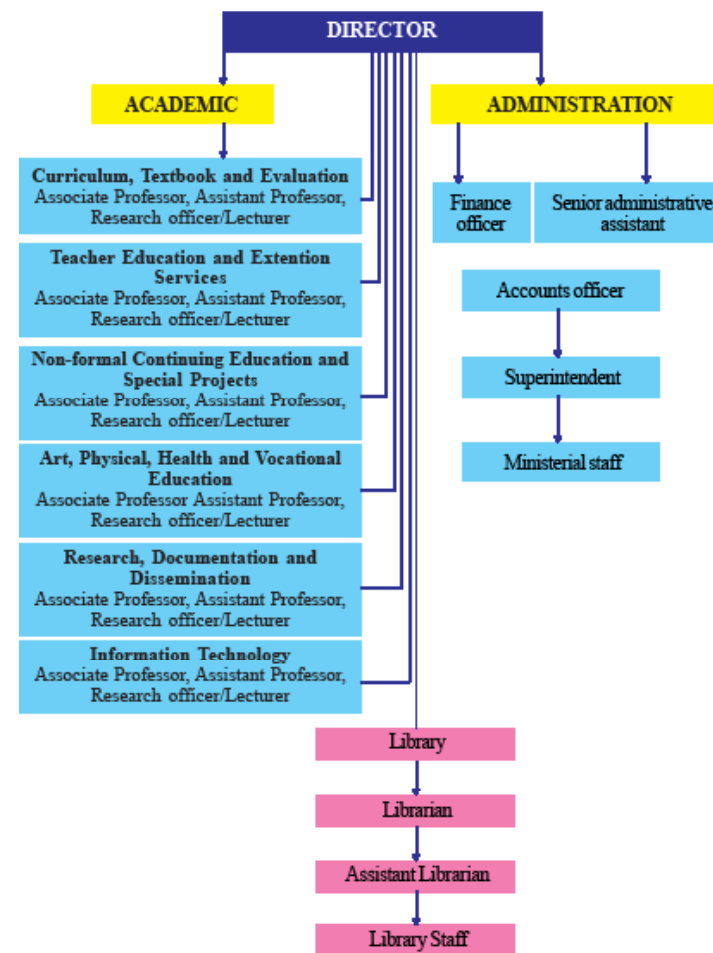


Fig. 4.1 Organizational Pattern of SCERT

### 4.1.3.2 Organizational Pattern of DTERT

The organizational pattern of DTERT is also divided into two main heads: Academic officers and administrative officers. Pictorial representation of the organizational structure of DTERT is given in Fig. 4.2.

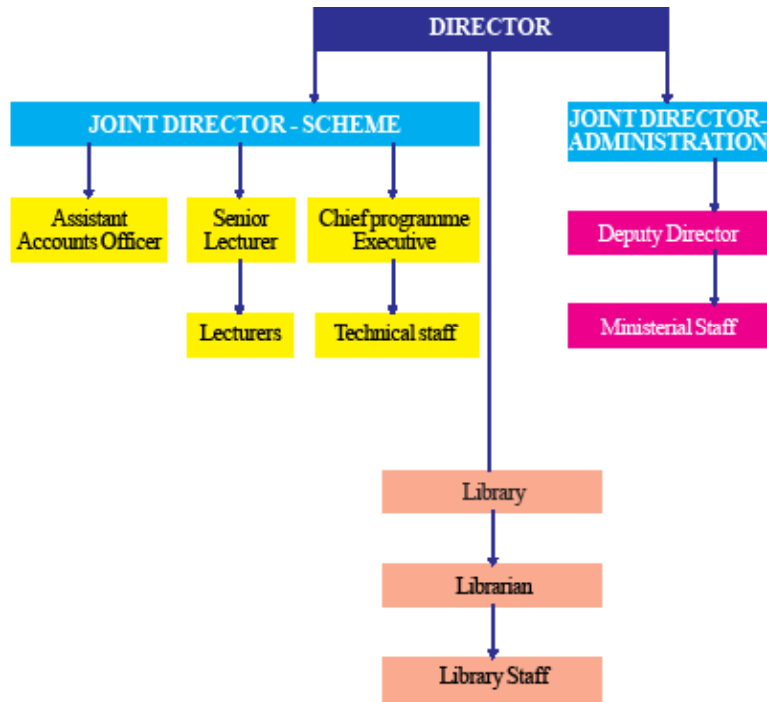


Fig. 4.2 Organizational Pattern of DTERT

From the organizational chart of SCERT and DTERT, it is observed that a separate department-wise pattern is seen in SCERT Kerala and each department has an Associate Professor, Assistant Professor, Research Officer/Lecturer. But in DTERT such department-wise structure is not seen. In DTERT, there exists an administrative hierarchy consisting of Joint Directors and Deputy Director. However in SCERT, academic as well as administrative wings are directly linked with the Director, SCERT.

### 4.1.4 Linkages of SCERT and DTERT with other Organizations

Both SCERT and DTERT have cooperation with other agencies at the district, state, national and international levels for effective functioning of the institutions.

### 4.1.4.1 Linkage of SCERT with Other Organizations

SCERT collaborates with all agencies working for the qualitative improvement of education at the state, national and international levels. These include UNICEF and UNFPA at the international level, the National Council of Educational Research and Training (NCERT) New Delhi, the National University of Educational Planning and Administration (NUEPA) New Delhi, the Central Institute of English Hyderabad, the Regional Institute of English Bangalore, the Regional Institute of Education Mysore, and the Central Institute of Languages Mysore, at the national level, IASE Thrissur, Education Department of universities in Kerala, SIET, SIEMAT SSA, RMSA, IT @ school, DIET, Pareeksha Bhavan, DHSE, DVHSE, DTHSE, Open school, KSLMA and teacher training colleges at the state level and DIETs and District Centre for English at the district level.

Pictorial representation of the linkage of SCERT is given in Fig. 4.3.

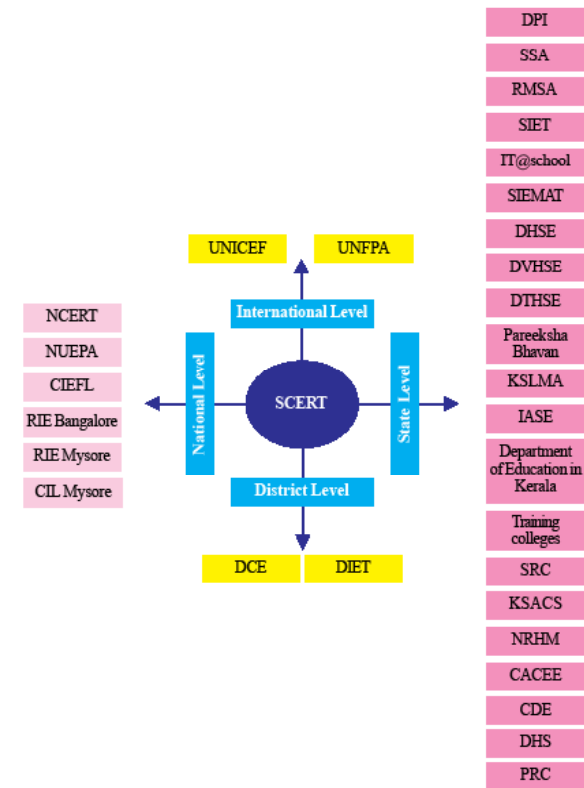


Fig. 4.3 Linkage of SCERT with Other Organizations

#### 4.1.4.2 Linkage of DTERT with Other Organizations

Like SCERT, DTERT too has linkage with agencies at state, national and international levels. Pictorial representation is given in Fig. 4.4.

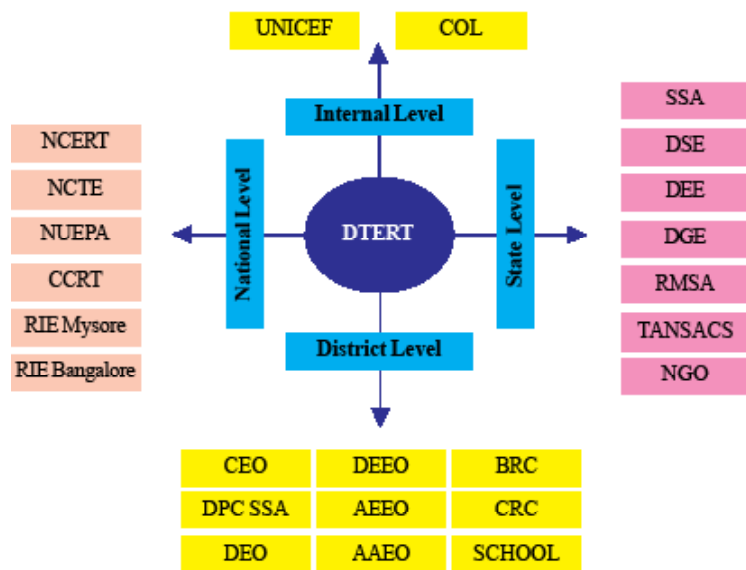


Fig. 4.4 Linkage of DTERT with Other Organizations

While analyzing the linkage of SCERT and DTERT it is clear that though both these institutions have academic linkage with agencies at the state, national and international levels, DTERT exercises a wider district level linkage than that of SCERT Kerala. So it is interpreted that DTERT is more actively participating in the field than SCERT. SCERT shows wider state level linkage than DTERT.

#### 4.2 ANALYSIS OF THE RESPONSES TO THE QUESTIONNAIRE FOR SENIOR FACULTY OF SCERT AND DTERT

This questionnaire was developed with a view to getting the facts regarding the organization and functions of SCERT and DTERT. The questionnaire has three parts. Part ‘A’ is intended to collect personal data of the respondents. Part ‘B’ is for collecting data regarding the organizational structure of these institutions and Part ‘C’ is intended to collect data regarding the functions of both the institutions. Detailed analysis of each session is given below.

The following tables give the analysis of data in detail.

#### Part A: Profile of the Sample

This part of the questionnaire was used for collecting personal data from the respondents (Senior faculty members from SCERT and DTERT). The following table gives in detail the analysis of personal data.

Table 4.3: Profile of Senior Faculty

No	Items	SCERT	DTERT
1	Gender	Female	Male
2	Educational qualification	M.A,M.Ed	M.Sc, M.Ed, Ph.D
3	Total experience	Above 15 years	Above 15 years
4	Experience in SCERT/DTERT	Between 10 – 15	Between 10 – 15

Table 4.3 shows that both the senior faculty members of SCERT and DTERT have a very high professional qualification of Masters degree in Art/ Science and Education. The faculty member of DTERT also hold a Doctoral Degree. Both the faculty members have more than 10 years of experience in SCERT/DTERT. So it is seen that both faculty members of SCERT and DTERT are generally and professionally highly qualified.

#### Part B: Analysis Regarding Organizational Structure of SCERT and DTERT

This part of the questionnaire was used for collecting the general organizational structure of the institutions. The following tables give in detail the analysis of this data.

Table 4.4: General Organizational Structure

No	Items	SCERT	DTERT
1	Type of organizational structure	Council	Directorate
2	Designation of head	Director	Director
3	Subordinate officers	Nil	Joint Directors and Deputy Director
4	Total faculty members	<b>22</b>	<b>16</b>

Table 4.4 reveals that though the legal status of two organizations are entirely different, nomenclature of the heads of the two institutions is identical. The position of DTERT is better in terms of high level

administrative officers (Joint Directors and Deputy Director) and SCERT is better in terms of faculty members.

**Table 4.5: Details regarding the Departments**

No	Items	SCERT	DTERT
1	Particular department structure	Yes	Yes
2	Number of departments	6	6
3	Need to establish new department	No	No
4	Need to bifurcate any department	No	No

Table 4.5 shows that both the institutions are functioning with the support of various departments which have definite department structure. The total number of departments are also the same in SCERT and DTERT. Both the respondents are satisfied with the existing structural arrangement of the departments in spite of the fact that the department-wise organization of these two institutions are different.

**Table 4.6: Departments and Faculty**

No.	SCERT		DTERT	
	Name of Department	Number of Faculty	Name of Department	Number of Faculty
1	Curriculum, Textbooks and Evaluation	14	Curriculum Development	3
2	Teacher Education and Extension Services	3	Pre-service Education	3
3	Art, Physical, Health and vocational Education	1	In-service Education	2
4	Non- formal, Continuing Education and Special Projects	2	Population/Adolescent Education	2
5	Research, Documentation and Dissemination	1	Research Projects	1
6	Educational Technology	1	Educational Technology	5

Table 4.6 shows that both the institutions have the same number of departments and perform almost the same functions. The main difference is that there exists no department in DTERT for handling Non-formal education, Art, Physical, Health and Vocational Education. So it is interpreted that though the number of departments and the functions are more or less same, SCERT Kerala is performing in a better way in the area of Non-formal, Art and Physical, Health and Vocational Education sector than DTERT Tamil Nadu which give importance to Population/Adolescent education areas.

**Table 4.7: Cadre of Faculty**

No	SCERT		DTERT	
	Designation	Number	Designation	Number
1	Associate professors	Nil	Senior Lecturers	6
2	Assistant professors	5	Lecturers	8
3	Research officers/Lecturers	17	School Assistants	2
4	<b>Total</b>	<b>22</b>		<b>16</b>

Table 4.7 reveals that SCERT is rich in terms of total number of faculty members but their designations are different in SCERT and DTERT.

**Table 4.8: Details regarding Appointment of Faculty**

No	Items	SCERT	DTERT
1	Nature of appointment	Permanent and on deputation	Permanent
2	Number of permanent Staff	12	16
3	Number of Staff on deputation	10	Nil
4	Mode of selection	Interview	Written test and Interview
5	Parent Institutions of deputed staff	Training Colleges, DIETs and schools	NA

**Table 4.9: Nature of Temporary Faculty**

No	Items	SCERT	DTERT
1	Contract faculty	Nil	Nil
2	Visiting faculty	Nil	Nil

No	Items	SCERT	DTERT
3	Guest faculty	Nil	Nil
4	Consultants	Yes	Nil

Tables 4.8 and 4.9 show that in DTERT all the faculty members are permanent but in SCERT there are permanent as well as deputed staff, selected through interview. From Table 4.9, it is also clear that DTERT does not prefer temporary faculty but in SCERT the Consultant is a temporary faculty.

**Table 4.10: Details of Appointment of Ministerial Staff**

No	Items	SCERT	DTERT
1	Number of ministerial staff	32	26
2	Mode of appointment	Deputation	Permanent
3	Number of permanent ministerial staff	Nil	All
4	Number of deputed ministerial staff	All	Nil

**Table 4.11: Cadre of Ministerial Staff**

No	Items	SCERT	DTERT
1	Ranking of ministerial staff in ascending order	Finance officer/Senior administrative assistant, Accounts officer, Superintendent	Finance officer, Accounts officer, Superintendent

Table 4.10 shows that the entire ministerial staff of DTERT are permanent while in SCERT there are only deputed staff. However SCERT is rich in terms of total number of ministerial staff. Table 4.11 reveals that both institutions have enough support of Senior Administrative Officers.

**Table 4.12 : Rules, Regulation and Salary Details**

No	Items	SCERT	DTERT
1	Rules and regulations	No	Yes
2	Type of statute/rules	NA	State rules
3	Type of salary drawn	State	State

From Table 4.12, it is clear that the members of the staff of DTERT are governed by rules of state government and their salary is based on the scale of pay of state employees. But in SCERT, there exists no special rule regarding the service conditions of academic staff and they are also drawing salary based on the scale of pay of state government. Hence it is interpreted that due to existing well-defined rules and regulations, DTERT can accommodate more permanent staff.

**Table 4.13: Physical Arrangements of Departments**

No	Items	SCERT	DTERT
1	Department wise arrangement	Yes	No
2	Nature of arrangement	Separate room	Separate room

**Table 4.14: Nature of Seating Arrangements**

No	Facilities	SCERT	DTERT
1	Chair & Table	Yes	Yes
2	Computer	Yes	Yes
3	Internet	Yes	Yes
4	Storage Facilities	Yes	Yes

Tables 4.13 and Table 4.14 reveal that physical arrangements of departments and the facilities attached to their seating arrangements are identical in both the institutions, which appears to be fine.

**Table 4.15: Housing Details**

No	Items	SCERT	DTERT
1	House of institution	Permanent Government	Permanent Government
2	Area of building	Above 8000 (50000) Sq.ft	Below 7000 Sq.ft
3	Compound of institution	Between 50 – 100 cent	Less than 50 cent

This table shows that both institutions have permanent building constructed in government property with moderate area. SCERT is rich in terms of area of land and building.

**Table 4.16: Nature of Workshop and Facilities for Workshop**

No	Items	SCERT	DTERT
1	Nature of workshop	Residential and non-residential	Residential and non-residential
2	Presence of full furnished seminar hall	Yes	Yes
3	Permanent facility for workshop/training	No	No
4	Venue for workshop/training	Rented building	Rented building

Table 4.16 reveals that both institutions conduct both residential and non-residential workshops, both the institutions have well furnished seminar halls but both do not have the facility of permanent set-up for training. They depend on other institutions in this regard.

**Table 4.17: Library Facility**

No	Items	SCERT	DTERT
1	Library	Yes	Yes
2	Qualified librarian	Yes	Yes
3	No. of books and journals	Books-40346 journals -85	Books-8450 Journals-20
4	Library as an information centre to teachers	Yes	No

Table 4.17 shows that both SCERT and DTERT possess library with qualified librarians. While the library of SCERT is an information centre for the entire teaching community of the state, the entry to the library of DTERT is generally confined to the staff members of DTERT only. Strength of SCERT library is rich with regard to books and journals.

**Table 4.18: Facility for Printing, Transport and Satisfaction with the Organizational Structure**

No	Items	SCERT	DTERT
1	Computer with printer	Yes	Yes
2	Printing press	Yes	No

No	Items	SCERT	DTERT
3	Xerox Copier	Yes	Yes
4	Risograph	Yes	No
5	Transport facilities	Yes	Yes
6	No. of Vehicle	4	4
7	Adequacy of vehicle	Yes	Yes
8	Satisfaction with the organizational structure	Yes	Yes

Table 4.18 shows that both institutions have facility for computer printing and xerox copying. But in SCERT there exists facility of printing press and resograph. Both the institutions have moderate transport facility. It is also revealed that both the respondents are satisfied with the existing organizational structure. So it is inferred that the faculty members of both these institutions are pleased with the existing organizational structure prevailing in concerned institutions.

### Part C: Analysis regarding the Functions of SCERT Kerala and DTERT Tamil Nadu

This part of the questionnaire is intended to identify the functions of SCERT and DTERT. The following tables give in detail the analysis of these data.

**Table 4.19: Role of SCERT and DTERT in Various Matters**

Matter	SCERT			DTERT		
	No role	Minimum role	Substantial role	No role	Minimum role	Substantial role
Assist the Government in educational policy formulation	-	-	✓	-	-	✓
Implementation of government's educational policy	-	-	✓	-	-	✓
Framing of curriculum	-	-	✓	-	-	✓
Preparation of syllabus	-	-	✓	-	-	✓



Matter	SCERT			DTERT		
	No role	Minimum role	Substantial role	No role	Minimum role	Substantial role
Development of Textbooks	-	-	✓	-	-	✓
Development of Handbooks	-	-	✓	-	-	✓
Development of Evaluation Materials	-	-	✓	-	-	✓
Development of Additional Reading Materials	-	-	✓	-	-	✓
TTC Curriculum Material	-	-	✓	-	-	✓
Population Education Material	-	-	✓	-	-	✓
Special Education Material	-	-	✓	✓	-	-
Non- formal Education Material	-	-	✓	✓	-	-

Table 4.19 reveals that both SCERT and DTERT play substantial role in assisting the government in policy formulation and implementation, framing of curriculum and syllabus, development of textbooks, handbooks, evaluation materials and additional reading materials. Both these institutions play a creative role in the preparation of TTC curriculum material and population education material. However, in the preparation of special education material and Non- formal education material, SCERT plays a substantial role while DTERT has no role at all.

**Table 4.20: Role of SCERT and DTERT at Pre-primary, Primary, Secondary and Higher Secondary Levels**

Level	Items	SCERT	DTERT
Pre-Primary	Formulation of curriculum and syllabus	Yes	No
	Preparation of textbooks	No	No
	Preparation of handbooks	Yes	No

Level	Items	SCERT	DTERT
Primary	Preparation of additional reading material	Yes	No
	Evaluation strategies	Yes	No
	Training module	Yes	Yes
	Providing training	Yes	Yes
	Formulation of curriculum and syllabus	Yes	Yes
	Preparation of textbooks	Yes	Yes
	Preparation of handbooks	Yes	No
	Preparation of additional reading material	Yes	No
	Evaluation strategies	Yes	Yes
	Training module	Yes	Yes
Providing training	Yes	Yes	
Secondary	Formulation of curriculum and syllabus	Yes	Yes
	Preparation of textbooks	Yes	Yes
	Preparation of handbooks	Yes	No
	Preparation of additional reading material	Yes	No
	Evaluation strategies	Yes	No
	Training module	Yes	No
	Providing training	Yes	No
Higher secondary	Formulation of curriculum and syllabus	Yes	No
	Preparation of textbooks	yes(for language and humanities)	No
	Preparation of handbooks	Yes	No
	Preparation of additional reading material	Yes	No
	Evaluation strategies	Yes	No
	Training module	Yes	No
Providing training	Yes	No	

Table 4.20 reveals that in the matter of formulation of curriculum and syllabus, development of handbook, development of evaluation strategies, preparation of training module and providing training at pre-primary level, SCERT alone plays a very significant role. Regarding the development of textbooks, SCERT plays no role while DTERT is engaged only in the area of teacher training.

At the primary level, both SCERT and DTERT play creative roles in the formulation of curriculum and syllabus, development of textbooks, development of evaluation strategies, preparation of training module and providing training. Though SCERT prepares handbook and additional reading materials, DTERT is not engaged in such activities.

At the secondary level, formulation of curriculum and syllabus and preparation of textbook are the areas of concern of both SCERT and DTERT. However, SCERT alone is engaged in preparation of handbook, additional reading materials, development of evaluation strategies, training module and providing training in this sector.

The table also reveals that DTERT plays no role at the higher secondary sector. But SCERT plays a creative role in the formulation of curriculum and syllabus, preparation of textbook and handbooks, evaluation strategies, preparation of training module and in imparting training at higher secondary level. One major thing to be noted is that SCERT prepares text books for languages and humanities at higher secondary education level. But in the preparation of hand book, SCERT holds a major role for all subjects.

**Table 4.21: Role of SCERT and DTERT at TTC and B.Ed Levels**

Level	Items	SCERT	DTERT
TTC	Formulation of curriculum and syllabus	Yes	Yes
	Preparation of textbooks	No	No
	Preparation of handbooks	Yes	Yes
	Preparation of additional reading material	Yes	Yes
	Evaluation strategies	Yes	Yes
	Training module	Yes	Yes
	Providing training	Yes	Yes
B.Ed	Formulation of curriculum and syllabus	No	No
	Preparation of textbooks	No	No
	Preparation of handbooks	No	No

Level	Items	SCERT	DTERT
B.Ed	Preparation of additional reading material	No	No
	Evaluation strategies	No	No
	Training module	No	No
	Providing training	No	No

Table 4.21 reveals that both SCERT and DTERT have a creative role in all the academic areas of Teacher Training Course (TTC). But it is noted that both the institutions do not develop any textbook for TTC. Table also reveals that both SCERT and DTERT do not play any role at the graduate level of teacher education ie, B.Ed level. So it can be interpreted that pre-service education is the main area of concern of both SCERT and DTERT, their role is confined to the TTC level.

**Table 4.22: Role of SCERT and DTERT at Vocational, Technical and Open Education Levels**

Level	Items	SCERT	DTERT
Vocational education	Formulation of curriculum and syllabus	Yes	No
	Preparation of textbooks	Yes	No
	Preparation of handbooks	Yes	No
	Preparation of additional reading material	Yes	No
	Evaluation strategies	Yes	No
	Training module	Yes	No
	Providing training	Yes	No
Technical education	Formulation of curriculum and syllabus	Yes	No
	Preparation of textbooks	Yes	No
	Preparation of handbooks	Yes	No
	Preparation of additional reading material	Yes	No
	Evaluation strategies	Yes	No
	Training module	Yes	No
	Providing training	Yes	No

Level	Items	SCERT	DTERT
Open schooling	Formulation of curriculum and syllabus	Yes	No
	Preparation of textbooks	Yes	No
	Preparation of handbooks	Yes	No
	Preparation of additional reading material	Yes	No
	Evaluation strategies	Yes	No
	Training module	Yes	No
	Providing training	Yes	No

From Table 4.22, it is clear that DTERT does not play any role in the areas of vocational higher secondary, technical education and the open system of learning. But SCERT plays an active role in almost all academic aspects of these three areas of education including the preparation of textbooks and handbooks.

**Table 4.23: Role of SCERT and DTERT at Art, Physical and Health Education Levels**

Level	Items	SCERT	DTERT
Art education	Formulation of curriculum and syllabus	Yes	No
	Preparation of textbooks	No	No
	Preparation of handbooks	Yes	No
	Preparation of additional reading material	Yes	No
	Evaluation strategies	Yes	No
	Training module	Yes	No
	Providing training	Yes	No
	Physical education	Formulation of curriculum and syllabus	Yes
Preparation of textbooks		No	No
Preparation of handbooks		Yes	No
Preparation of additional reading material		Yes	No
Evaluation strategies		Yes	No
Training module		Yes	No
Providing training		Yes	No

Level	Items	SCERT	DTERT
Health education	Formulation of curriculum and syllabus	Yes	No
	Preparation of textbooks	No	No
	Preparation of handbooks	Yes	No
	Preparation of additional reading material	Yes	No
	Evaluation strategies	Yes	No
	Training module	Yes	No
	Providing training	Yes	No

From Table 4.23, it is clear that DTERT does not play any role in Art, Physical and Health education areas, but SCERT plays a significant role in almost all academic aspects of these areas of education except in the preparation of textbooks.

**Table 4.24: Role of SCERT and DTERT at Special and Non- formal Education Levels**

Level	Items	SCERT	DTERT
Special education	Formulation of curriculum and syllabus	Yes	No
	Preparation of textbooks	Yes	No
	Preparation of handbooks	Yes	No
	Preparation of additional reading material	Yes	No
	Evaluation strategies	Yes	No
	Training module	Yes	No
	Providing training	Yes	No
	Non-formal education	Formulation of curriculum and syllabus	Yes
Preparation of textbooks		Yes	No
Preparation of handbooks		Yes	No
Preparation of additional reading material		Yes	No
Evaluation strategies		Yes	No
Training module		Yes	No
Providing training		Yes	No

Table 4.24 reveals that DTERT does not play any role in the area of special education and Non-formal education. But the role of SCERT is very significant in these two areas starting from curriculum preparation to teacher training. So it is interpreted that SCERT Kerala has been actively participated in all the areas of Formal as well as Non-formal education sector.

**Table 4.25: Role of SCERT and DTERT at IT and Population Education Levels**

Level	Items	SCERT	DTERT
IT education	Formulation of curriculum and syllabus	Yes	No
	Preparation of textbooks	Yes	No
	Preparation of handbooks	Yes	No
	Preparation of additional reading material	Yes	No
	Evaluation strategies	Yes	No
	Training module	Yes	No
	Providing training	Yes	Yes
Population/ Adolescent education	Formulation of curriculum and syllabus	No	No
	Preparation of textbooks	No	No
	Preparation of handbooks	No	No
	Preparation of additional reading material	Yes	Yes
	Evaluation strategies	No	No
	Training module	Yes	Yes
	Providing training	Yes	Yes

Table 4.25 shows that in the area of information technology too, SCERT plays an active role, especially in the development of textbooks, handbooks and evaluation materials. DTERT is only engaging in the training programme in the field of IT education area. But both SCERT and DTERT play a substantial role in the area of population/adolescent education. They prepare additional reading materials and providing training.

**Table 4.26: Role of SCERT and DTERT at Different Stages of Training at Different Levels**

No	Level	SCERT				DTERT			
		Module preparation	SRG Training	DRG Training	Teacher Training	Module preparation	SRG Training	DRG Training	Teacher Training
A	Pre-primary	Yes	Yes	No	No	No	No	No	Yes
B	Primary	Yes	Yes	No	No	Yes	Yes	Yes	Yes
C	Secondary	Yes	Yes	No	No	No	No	No	No
D	Higher secondary	Yes	Yes	No	No	No	No	No	No
E	TTC	Yes	Yes	No	No	Yes	Yes	Yes	Yes
F	Population Education	Yes	Yes	NA	Yes	Yes	Yes	Yes	Yes
G	Non-formal education	Yes	Yes	NA	Yes	No	No	No	No
H	Special education	Yes	Yes	NA	Yes	No	No	No	No

Table 4.26 reveals that at the primary level, TTC and Population education areas, DTERT plays a better role since DTERT is involved in all aspects of training including module preparation to teacher training. The role of SCERT in this regard is confined to module preparation and SRG training. At the Pre-primary level, role of the DTERT is confined to teacher training while the SCERT is involved in module preparation and SRG training. DTERT plays no role in Secondary, Higher secondary, Non-formal and Special education levels. At the Secondary and Higher secondary levels of education, SCERT is involved in module preparation and SRG training. In the Non-formal education and Special education areas too SCERT has a role in module preparation, SRG training and teacher training. So it is interpreted that as an apex body in school education, the main role of SCERT is to provide in-service training. So the SCERT develops the module for teacher training and provides the State Resource Group training with well defined module. In Kerala, DRG and teacher training is not done by SCERT but by other agencies like SSA and DIET. Though the

purview of DTERT extends from module preparation to teacher training, it is only concentrated at certain levels especially at the primary level. So it is interpreted that the role of SCERT is wider from the pre-primary to the higher secondary level with respect to the area of in-service training and also interpreted that DTERT is more interacting with field teachers than SCERT. Since the number of teachers are less in the area of Special, Non -formal and Adolescent education sectors, SCERT is involved in teacher training too.

**Table 4.27: Field Level Teacher Training Agencies at Different Levels in Kerala and Tamil Nadu**

Level	Kerala	Tamil Nadu
Primary	DIET and SSA	DTERT, DIET and SSA
Secondary	DIET	University of teacher education
Higher secondary	DHSE	DHSE

From the Table 4.27, it is clear that in the state of Tamil Nadu DTERT, DIET and SSA are the agencies for teacher training while in Kerala SCERT is not involved in this process and it is assigned to SSA ( Primary) and DIET (secondary). It is pertinent to note that in Tamil Nadu, DTERT is not involved in the teacher training process of secondary education, which is done by the University of Teacher Education.

**Table 4.28: Details of IT Training for Teachers and Students**

No	Items	SCERT	DTERT
1	IT enabled training for teachers	Yes	Yes
2	IT enabled training for students	No	Yes
3	Collaborating Agency in IT training	IT@ School	IT@ School
4	Audio-visual training	Yes	No
5	Purpose of audio-visual training	Enable the teachers to develop materials for class room transaction.	NA

Table 4.28 shows that both DTERT and SCERT are involved in IT enabled training for teachers but DTERT alone is involved in training for students in this regard. From the table it is clear that IT @ school is the collaborating agency for both the institutions in this regard. Table also reveals that SCERT alone is involved in audio-visual training and the purpose of training is to enable teachers to develop materials for effective classroom transaction.

**Table 4.29: Training for Educational Administrators in Kerala and Tamil Nadu**

No	Category	SCERT		DTERT
		No	Agency	Yes
i	DDE	✓	SIEMAT	✓
ii	DIET Principal	✓	SIEMAT	✓
iii	DEO	✓	SIEMAT	✓
iv	AEO	✓	SIEMAT	✓
v	HM	✓	SIEMAT	✓
vi	Principal of the HSS	✓	SIEMAT	✓
vii	SSA faculty members	✓	SIEMAT	✓
viii	Other DIET faculty members	✓	SIEMAT	✓

Table 4.29 shows that in the state of Tamil Nadu DTERT is the agency for providing training for educational administrators at different levels. In the state of Kerala this function is not performed by SCERT but by SIEMAT.

**Table 4.30: Opportunity for FIP**

No	Items	SCERT	DTERT
1	Within the institution	Yes	No
2	Outside the institution	Yes	Yes

This table reveals that both SCERT and DTERT provide faculty improvement programmes outside the institution. SCERT provides such programmes within the institution too.

Table 4.31: Details of FIP

No.	Programme	SCERT						DTERT					
		State Level	Agency	National Level	Agency	International Level	Agency	State. Level	Agency	National Level	Agency	International Level	Agency
1	Training	✓	SCERT, SSA, DHSE	✓	SCERT, NCERT, NUEPA, RIE	✓	SCERT, UNICEF	Nil	-	Nil	-	Nil	-
2	Workshop	✓	SCERT, SSA, DHSE	✓	SCERT, NCERT, NUEPA, RIE	✓	SCERT, UNICEF	Nil	-	Nil	-	Nil	-
3	Seminar	✓	SCERT, SSA, DHSE	✓	SCERT, NCERT, NUEPA, RIE	✓	SCERT, UNICEF	Nil	-	Nil	-	Nil	-
4	Conference	✓	SCERT, SSA, DHSE	✓	SCERT, NCERT, NUEPA, RIE	✓	SCERT, UNICEF	Nil	-	Nil	-	Nil	-

Table 4.31 shows that the faculty members of SCERT get various faculty improvement programmes including training, workshop, seminar and conference at the state, national and international level within the institution. For this purpose there is the collaboration of SCERT with UNICEF, NCERT, NUEPA, RIE, SSA, Higher Secondary Directorate etc. But the faculty members of DTERT do not get such programmes within the institution.

Table 4.32: Areas of Research Projects

No.	Areas	SCERT	DTERT
1	Curriculum and textbook	Yes	Yes
2	Evaluation	Yes	No
3	Pre-service education	Yes	Yes
4	Teacher training	Yes	Yes
5	Population /Adolescent education	Yes	Yes
6	Non – formal education	Yes	No

Table 4.32 shows that in SCERT, research programmes are carried out on curriculum, textbook, evaluation, pre-service education, teacher training and population / adolescent education. In DTERT also research activities are going on in all the mentioned areas, except evaluation and Non-formal education.

Table 4.33: Details of Research Projects of Various Agencies

No.	Agency	SCERT	DTERT
1	Central Government	No	No
2	State Government	Yes	Yes
3	ICSSR	Yes	No
4	NCERT	Yes	Yes
5	NUEPA	Yes	Yes

Table 4.34: Use of the Findings of Research for Policy Formulation

No	Items	SCERT	DTERT
1	Research findings for policy formulation	Yes	Yes

Tables 4.33 and 4.34 show that both SCERT and DTERT carry out projects of the state government, NCERT and NUEPA. SCERT carries out the projects of ICSSR also. None of these institutions carries out the project of the central government. Table 4.34 shows that the research findings of both these institutions have been used for policy formulation.

Table 4.35: Details of the Journal

No	Items	SCERT	DTERT
1	Publication	Yes	Yes
2	Name of publication	SCERT House Journal, SCERT News Letter	Seiti Model
3	Periodicity of journal	Yearly and quarterly respectively	Quarterly
4	Type of article	Journal- Research articles and theoretical papers. News letter- News related to SCERT	Research articles and theoretical papers
5	Contributors	Journal- Educationists and faculty members. News letter- Faculty members only	Educationists, faculty members, teachers and students

Table 4.35 shows that both SCERT and DTERT publish research journals and both the journals contain theoretical papers and research articles. Educationists and faculty members are the contributors in both the journals. But with regard to the journal of DTERT, teachers as well as students can also be contributed. It is inferred that DTERT is more interacting with the teaching and student community of the state than SCERT. The periodicity of the journal of DTERT is quarterly while that of SCERT is half yearly. In addition to that, SCERT publishes a quarterly news letter too.

Table 4.36: Nature of Control Exercised by SCERT and DTERT over Different Institutions

No	Institutions	SCERT				DTERT			
		Academic control	Administrative control	Both	None	Academic control	Administrative control	Both	None
1	Pre-primary school	✓	-			-	-	✓	
2	Primary school	✓	-	-	✓	-	-	-	
3	Secondary school	✓	-	-	-	-	-	✓	

No	Institutions	SCERT				DTERT			
		Academic control	Administrative control	Both	None	Academic control	Administrative control	Both	None
4	Higher secondary school	✓	-	-		-	-	-	✓
5	Technical institutions	✓	-	-		-	-	-	✓
6	Vocational institutions	✓	-	-		-	-	-	✓
7	SSA	-	-	-	✓	-	-	-	✓
8	DIET	-		-	✓	✓	✓	✓	-
9	Teacher Training Institutes(TTC)	✓	-	-	-	✓	✓	✓	-
10	Teacher training institutes (B.Ed)	-	-	-	✓	-	-	-	✓
11	Open school	✓	✓	✓	-	-	-	-	✓
12	Literacy mission	✓	-	-		-	-	-	✓

Table 4.36 shows that SCERT has academic control over pre- primary, primary, secondary, higher secondary education, TTC, technical institutions, vocational institutions, the open school and literacy mission. But DTERT does not exercise any academic control over the above said institutions except primary education. But DTERT has both academic as well as administrative control over, DIET and TTC. It is pertinent to note that SCERT exerts no academic control over DIETs.

SCERT does not have any administrative control over any such institutions in the state. Both SCERT and DTERT do not exercise any control over institutions providing graduate level teacher training (B.Ed). So it is inferred that as an apex body in school education, SCERT exercises only academic control over other institutions and in the area of pre-service teacher education at B.Ed level, there is no academic collaboration with such institutions. DTERT exercises academic as well as administrative power over DIET and TTC.

**Table 4.37: Collaboration with Other Institutions**

No.	Institutions	SCERT		DTERT		
		Weekly	Fortnightly	Monthly	Weekly	Fortnightly
1	Directorate at primary level	Yes	Yes			
2	Directorate at Secondary level	Yes	Yes			
3	Directorate at Higher secondary level	Yes	No			
4	Directorate at Vocational level	Yes	No			
5	Directorate at Technical level	Yes	No			
6	SSA	Yes	Yes			
7	DIET	Yes	Yes			
8	Institutions for Educational Management (Like SIEMAT)	Yes	Yes			
9	Institutions for Educational Technology (Like SIET)	Yes	No			
10	Institutions for Information Technology (Like IT@ School)	Yes	Yes			
11	Institutions for Open learning (Like Open School)	Yes	No			
12	Institutions for Literacy Mission (Like Saksharatha mission)	Yes	No			

Table 4.37 shows that both SCERT and DTERT have collaboration with Directorates of primary, secondary education, SSA, DIET, SIEMAT and institution for Information Technology. SCERT alone has collaboration with the Directorate of higher secondary, vocational higher secondary, technical education, institution for open learning, institutions for literacy mission and institutions for educational technology. So it is inferred that as an apex body in school education, SCERT exercises linkage with other institutions which provide formal as well as non-formal education.

**Table 4.38: Details of Staff Meetings**

No	Institution	SCERT			DTERT		
		Weekly	Fortnightly	Monthly	Weekly	Fortnightly	Monthly
1	With head and staffs	✓	-		✓	-	-

No	Institution	SCERT			DTERT		
		Weekly	Fortnightly	Monthly	Weekly	Fortnightly	Monthly
2	Heads of different department	✓	-	-	✓	-	-
3	Within the department	✓	-	-	NA	NA	NA
4	Meeting of the members of academic and administration	-	✓	-	-	✓	-

Table 4.38 shows that in SCERT and DTERT, meetings of Director and staff are conducted in every week. In both the institutions, there are weekly departmental staff meetings with the Heads of the department. SCERT and DTERT also arrange meetings of different Heads in every week. Both in SCERT and DTERT there are combined meetings of the academic and administrative staff. So it is interpreted that both in SCERT and DTERT there are effective interactions between the personnel for the effective implementation of academic activities.

**Table 4.39: Implementation of Programmes and Support from the Government**

No	Items	SCERT	DTERT
1	Satisfaction for implementation of programmes	Yes	Yes
2	Satisfaction for the support from the Government	Yes	Yes

Table 4.39 shows that both the respondents are satisfied with the implementation of programmes and support from the Government. So it is interpreted that in the functional way too SCERT and DTERT are doing well and the faculty members are satisfied with their programmes.

#### 4.3 ANALYSIS OF THE RESPONSES TO THE QUESTIONNAIRE FOR THE FACULTY OF SCERT AND DTERT

The questionnaire was devised to get more facts and information regarding the organization and functions of SCERT and DTERT. The respondents were asked to respond to the questions regarding the role



and functions of both the institutions. The detailed analysis of each item in the questionnaire is given below.

### Part A: Profile of the sample

This part of the questionnaire was used for collecting personal data from the respondents. The following table gives in detail the analysis of personal data.

**Table 4.40: Profile of the Faculty**

Profile of the faculty members		SCERT		DTERT		$\chi^2$	p
		Count	Percent	Count	Percent		
Gender	Male	10	45.5	10	62.5	1.08	0.299
	Female	12	54.5	6	37.5		
Education qualification	PG with M.Ed only	12	54.5	6	37.5	1.08	0.299
	PG with M.Ed & Ph.D	10	45.5	10	62.5		
Experience in SCERT/DTERT	Below 10 years	10	45.5	8	50.0	0.77	0.782
	Above 10 years	12	54.5	8	50.0		
Total experience	Between 10-15 years	14	63.6	8	50.0	0.71	0.401
	Above 15 years	8	36.4	8	50.0		
Mode of appointment	Permanent	12	55.5	16	100.0	7.37**	0.007
	Deputation	10	45.5	0	0.0		

\*\* : - Significant at 0.01 level

Table 4.40 reveals that in DTERT males constitute the majority of faculty members while in SCERT females constitute the majority of faculty members. In both the institutions the entire faculty members have masters degree in education and masters degree in any other subject. DTERT is rich in Ph.D degree holders (62.5%). But in SCERT Ph.D degree holders are only 45.5%. Both in SCERT and DTERT, above 50% of the faculty members have over 10 years of experience in their institution. In DTERT

percentage of permanent faculty members is 100 while in SCERT only 55.5% constitute permanent faculty members. Z test shows significant difference at 0.01 level between the permanent teachers of SCERT and DTERT. So it is interpreted that DTERT is rich in having permanent faculty members than SCERT.

### Part B

This part of the questionnaire was used for collecting the basic organizational structure of the institutions. The following table gives in detail the analysis of these data.

**Table 4.41: Opinion about the Present Legal Status of SCERT and DTERT**

Responses	SCERT		DTERT		Z	p
	Count	Percent	Count	Percent		
Yes	22	100.0	16	100.0	-	-
No	0	0.0	0	0.0		

Table 4.41 reveals that the entire staff in SCERT and DTERT are satisfied with the present legal status of their institution.

**Table 4.42: Opinion about Department-wise Function, Staff Pattern and Physical Condition**

Items	Responses	SCERT		DTERT		Z	p
		Count	Percent	Count	Percent		
Satisfaction about department-wise function	Yes	22	100.0	9	56.2	3.437**	0.000
	No	0	0.0	7	43.8		
Sufficiency in staff pattern	Yes	0	0.0	10	62.5	4.32**	0.000
	No	22	100.0	6	37.5		
Satisfaction about physical condition	Yes	22	100.0	14	87.5	1.704	0.089
	No	0	0.0	2	12.5		

\*\* : - Significant at 0.01 level

Table 4.42 reveals that among the faculty members of DTERT, 56.2% is satisfied with the department-wise function, whereas in Kerala cent percent positive response is seen in this matter. The ‘Z’ test shows that there is a significant difference at 0.01 level in the matter of satisfaction of the faculty members of SCERT as compared to that of DTERT.

In DTERT, 62.5% opined that staff pattern is sufficient, but its percentage in SCERT is 0. Z test (4.32) shows a significant difference at 0.01 level in the satisfaction about sufficiency of staff pattern among SCERT and DTERT. So it is interpreted that though SCERT is rich in terms of faculty members, when compared to its function, the number of faculty members are insufficient.

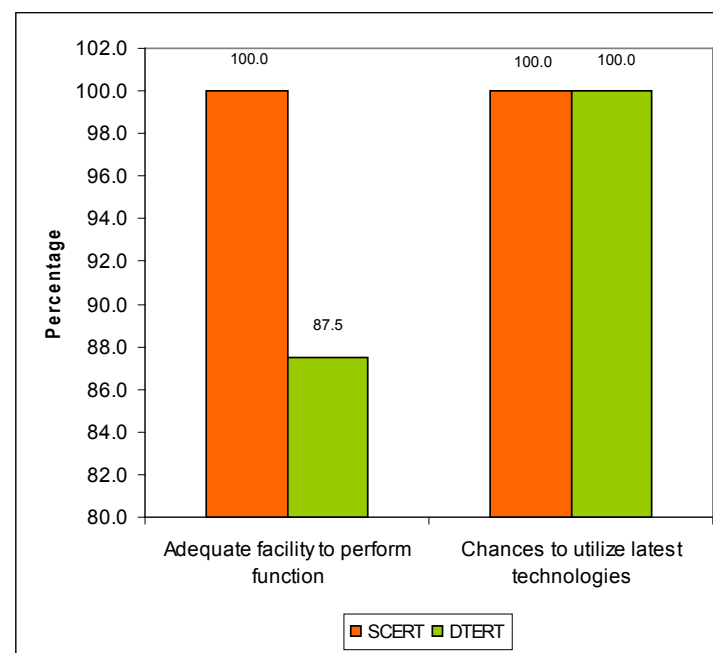
As for ‘Satisfaction about physical condition’ is concerned, 87.5% in DTERT and 100% in SCERT show a positive approach. There is no significant difference in this regard. So it is inferred that the physical facility provided by both SCERT and DTERT is fine.

**Table 4.43: Facilities to Perform Functions and Chances of Utilizing Latest Technologies**

Items	Responses	SCERT		DTERT		Z	p
		Count	Percent	Count	Percent		
Adequate facility to perform function	Yes	22	100.0	14	87.5	1.704	0.089
	No	0	0.0	2	12.5		
Chances to utilize latest technologies	Yes	22	100.0	16	100.0	-	-
	No	0	0.0	0	0.0		

Table 4.43 reveals that the whole faculty members in SCERT and 87.5% in DTERT is of the view that they have adequate facilities to perform functions. With respect to the responses to the question, ‘chances to utilize latest technologies’, the percentage is hundred in both SCERT and DTERT. There is no significant difference in these regard. So it is interpreted that both SCERT and DTERT provide adequate facility and opportunity to utilize latest technologies to their faculty members.

The graphical representation of the comparison of the facilities to perform functions and chances of utilizing latest technologies is given in Fig. 4.5.



**Fig. 4.5 Comparison of Opinion about Adequate Facilities to Perform Functions and Chances of Utilizing Latest Technologies**

**Part C**

This part of the questionnaire was used for collecting data about the general functions of these institutions.

**Table 4.44: Opinion about Satisfaction with Present Functions**

Responses	SCERT		DTERT		Z	P
	Count	Percent	Count	Percent		
Yes	22	100.0	14	87.5	1.704	0.089
No	0	0.0	2	12.5		

Table 4.44 shows that all the faculty members of SCERT and 87.5% from DTERT are satisfied with the present functions.

**Table 4.45: Opinion about Transfer of Functions from and to Other Institutions**

Items	Responses	SCERT		DTERT		Z	P
		Count	Percent	Count	Percent		
		Opinion about transfer of function from other institution	Yes	0	0.0		
	No	22	100.0	4	25.0		
Opinion about transfer of function to other institution	Yes	0	0.0	0	0.0	-	-
	No	16	100.0	16	100.0		

\*\* : - Significant at 0.01 level

Table 4.45 shows that the entire staff in SCERT and DTERT is of the opinion that none of the functions presently performed by them be transferred to any other institution. Though the entire staff in SCERT is of the opinion that none of the functions preferred by any other institution be transferred to SCERT, 75% of the faculty members of DTERT entertain the view that certain functions presently performed by some other agency be transferred to DTERT. Z test shows that there is significant difference at the level of 0.01 between the faculty members of SCERT and DTERT regarding the need to transfer functions from other institutions to SCERT/DTERT. To the effect that majority of faculty members of DTERT are of the opinion that more functions should be assigned to them. But the faculty members of both SCERT and DTERT are of the view that no function presently performed by them be transferred to other agencies. So it is interpreted that SCERT is performing well while some additional duties may be assigned to DTERT.

**Table 4.46: Keeping of Time Schedule relating to Materials and Training**

Items	Responses	SCERT		DTERT		Z	P
		Count	Percent	Count	Percent		
		Make available material in time	Yes	22	100.0		
	No	0	0.0	0	0.0		

Items	Responses	SCERT		DTERT		Z	P
		Count	Percent	Count	Percent		
		Provide training in time	Yes	22	100.0		
	No	0	0.0	0	0.0		

Table 4.46 shows that the entire staff of DTERT and SCERT opined that their institutions are keeping time schedule in matters of making available materials in time and providing training in time. So it is interpreted that both SCERT and DTERT are performing in a better way for effective classroom transaction.

#### Part D

This part of the questionnaire was used for collecting data regarding the facilities in research activities, the faculty improvement programmes they are given and the utilization of library for their professional growth.

**Table 4.47: Opportunity to Engage in Research Activities**

Items	Responses	SCERT		DTERT		Z	P
		Count	Percent	Count	Percent		
		Opportunity to carry out research projects	Yes	22	100.0		
	No	0	0.0	3	19.0		
Opportunity to publish report of research projects	Yes	22	100.0	10	62.5	3.13**	0.002
	No	0	0.0	6	37.5		
Place of publication of research projects	Institutional journal	18	82.0	11	69.0	0.934	0.352
	Others	4	18.0	5	31.0		

\*\* : - Significant at 0.01 level \* : - Significant at 0.05 level

Table 4.47 reveals that the entire staff in SCERT opined that they are getting the opportunity to carry out research projects and chance of publishing the report of research projects. In DTERT, 81% of the faculty members get the opportunity to carry out research projects and 62% has

the opportunity to publish the reports. Z test shows a significant difference at 0.05 and 0.01 levels in the chance to carry out research projects and publishing reports, among the faculty members of SCERT and DTER. So it is interpreted that majority of faculty members of SCERT are getting chance to undertake research work and publish report than those of DTER. It also reveals that majority (82%) of the faculty members of SCERT are getting the opportunity to publish the report of the research projects in their institutional journal. But its percentage is only 69 in DTER.

The graphical representation of the comparison of opportunity of faculty members of SCERT and DTER in research activities is given in Fig. 4.6.

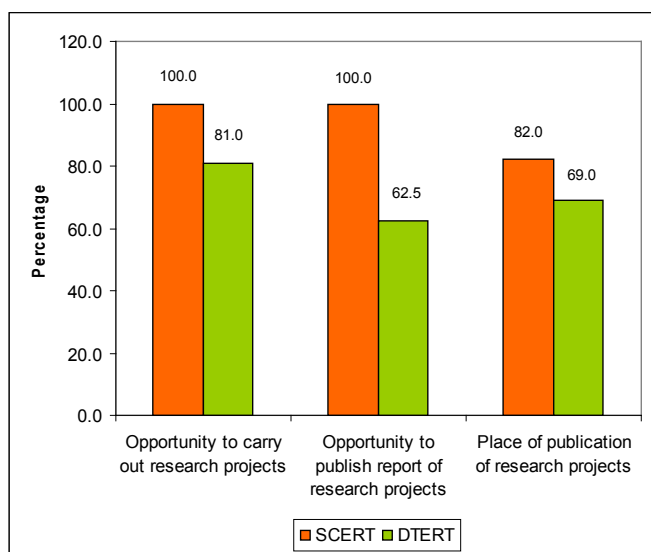


Fig.4.6 Comparison of Opportunity of Faculty of SCERT and DTER in Research Activities

Table 4.48: Opportunity for FIP

Items	Responses	SCERT		DTER		Z	P
		Count	Percent	Count	Percent		
Opportunity for faculty improvement programme within the institution	Yes	22	100.0	2	12.5	5.52**	0.000
	No	0	0.0	14	87.5		

Items	Responses	SCERT		DTER		Z	P
		Count	Percent	Count	Percent		
Opportunity for faculty improvement programme outside the institution	Yes	22	100.0	16	100.0	-	-
	No	0	0.0	0	0.0		
Use of library	Yes	22	100.0	16	100.0	-	-
	No	0	0.0	0	0.0		

\*\* : - Significant at 0.01 level

Table 4.48 shows that the entire faculty members of both the institutions stated that they have the opportunity for faculty improvement programme outside the institutions. While the entire staff of SCERT gets opportunity for faculty improvement programme within the institution, only 12.5% of DTER faculty members enjoy these facilities. Z test shows a significant difference at 0.01 level between the staff of SCERT and DTER in getting opportunity for faculty improvement programme within the institution. So it is inferred that for the improvement of faculty, SCERT Kerala is functioning in a better way than DTER. In the matter of using institutional library, both SCERT and DTER faculty members are in a better position.

Part E

This part of the questionnaire was used for collecting the opinion regarding the service conditions of the institutions. The following table gives in detail the analysis of these data.

Table 4.49: Opinion about Support from Authorities and Service Conditions

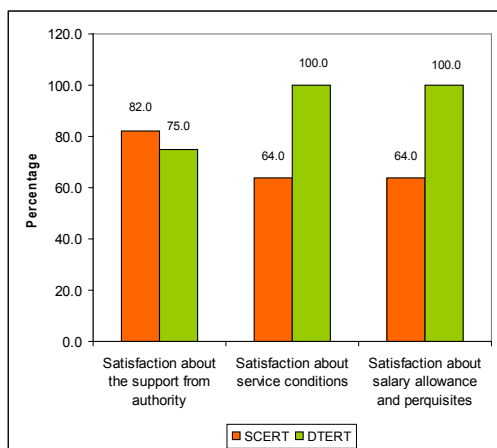
Items	Responses	SCERT		DTER		Z	P
		Count	Percent	Count	Percent		
Satisfaction about the support from authority	Yes	18	82.0	12	75.0	0.524	0.603
	No	4	18.0	4	25.0		
Satisfaction about service conditions	Yes	14	64.0	16	100.0	2.698**	0.007
	No	8	36.0	0	0.0		

Items	Responses	SCERT		DTERT		Z	P
		Count	Percent	Count	Percent		
Satisfaction about salary allowance and perquisites	Yes	14	64.0	16	100.0	2.698**	0.007
	No	8	36.0	0	0.0		

\*\* : - Significant at 0.01 level

Table 4.49 shows that though the entire staff in DTERT are satisfied with salary and service conditions, only 64% in SCERT is satisfied in this matters. 75% of the faculty members in DTERT and 82% in SCERT are satisfied with the support from authorities. ‘Z’ test shows a significant difference at 0.01 level in the matter of satisfaction regarding service conditions, salary allowances and perquisites. Though the faculty members of DTERT are satisfied in this regard, SCERT staff is not satisfied. So it is interpreted that since DTERT has a well defined service rules for the well being of the staff, they are more satisfied with the service conditions and salary and other related benefits.

The graphical representation of the comparison of satisfaction about the support from authority, service conditions, salary allowances and perquisites is given in Fig. 4.7.



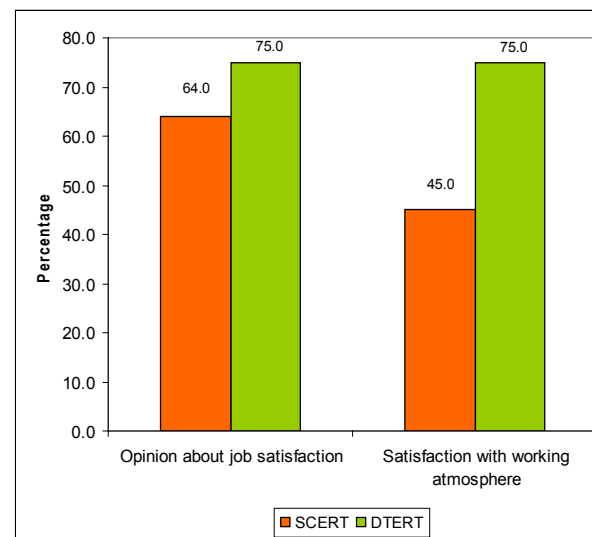
**Fig. 4.7 Comparison of the Opinion of Faculty Members about the Satisfaction with the Support from Authorities, Service conditions, Salary Allowances and Perquisites**

**Table 4.50: Opinion about Job Satisfaction and Working Atmosphere**

Items	Responses	SCERT		DTERT		Z	P
		Count	Percent	Count	Percent		
Opinion about job satisfaction	Yes	14	64.0	12	75.0	0.722	0.472
	No	8	36.0	4	25.0		
Satisfaction with working atmosphere	Yes	10	45.0	2	75.0	1.848	0.066
	No	12	55.0	4	25.0		

Table 4.50 reveals that though 75% of faculty members in DTERT have job satisfaction and satisfaction about working atmosphere, only 64% in SCERT has job satisfaction and only 45% is satisfied with working atmosphere. From the table it is interpreted that the low percentage of responses about job satisfaction and satisfaction about working atmosphere in SCERT may be due to the lack of service rules.

The graphical representation of the comparison of opinion about job satisfaction and working atmosphere of the faculty members of SCERT and DTERT is given in Fig. 4.8.



**Fig. 4.8 Comparison of Opinion about Job Satisfaction and Working Atmosphere of Faculty of SCERT and DTERT**

## Part F

This part of the questionnaire is intended to draw open responses from the faculty members of SCERT and DTERT regarding the items they need for professional growth, the highlighted points of institutions, limitations of institutions and suggestions for improvement of institutions. These items are charted in tables given below.

**Table - 4.51: Things to be Needed for Professional Growth**

SCERT	DTERT
<ul style="list-style-type: none"> <li>• Chances of participating national and international workshops, seminars etc.</li> <li>• Faculty improvement programme related to subject</li> <li>• IT based training</li> <li>• Exposure visit to other states(SCERTs, SSAs etc)</li> <li>• Time to learn more in subject areas</li> <li>• Special training based on innovative practices</li> </ul>	<ul style="list-style-type: none"> <li>• Faculty improvement programme within and outside the state</li> <li>• IT training</li> <li>• Exposure visit to other states(SCERTs, SSAs etc)</li> </ul>

Table 4.51 shows that both SCERT and DTERT faculty members need faculty improvement programme, IT based training, exposure visit etc for their professional growth.

**Table 4.52: Highlighted points of Institutions**

SCERT	DTERT
<ul style="list-style-type: none"> <li>• Time bound activities, especially in the area of curriculum, syllabus and textbook preparation</li> <li>• Academic freedom</li> <li>• Financial assistance and support from the part of authorities</li> <li>• Responsibility entrusted on faculty members</li> <li>• Modern facilities d given to the faculties</li> <li>• Cooperation among staffs</li> </ul>	<ul style="list-style-type: none"> <li>• Preparing text books for the state</li> <li>• Cooperation with Director and staff</li> <li>• Opportunity to participate in national level programmes</li> <li>• Financial assistance and support from the part of authorities</li> </ul>

From Table 4.52, it is clear that the highlighted points of SCERT are time bound activities, academic freedom, and modern facilities attached to the faculty members. Faculty members of DTERT opined that they enjoy

the development of textbooks for the states, the cooperation between the Director and the staff and the opportunity to participate in national level programmes.

**Table 4.53 Limitations of Institutions**

SCERT	DTERT
<ul style="list-style-type: none"> <li>• Absence of approved rules and regulations</li> <li>• Non-availability of permanent faculty members including Director</li> <li>• Absence of field testing before implementing curriculum and textbooks</li> </ul>	<ul style="list-style-type: none"> <li>• Absence of department- wise functioning</li> <li>• Lack of control on training at secondary level</li> <li>• Lack of coordination with other educational agencies in the state</li> </ul>

Table 4.53 explains that the limitations of SCERT are the absence of rules and regulations for the institution, lack of permanent staff including Director and absence of field testing of textbooks before implementation. DTERT pointed out that absence of department-wise function, lack of control on teacher training at secondary level and of coordination with other agencies are the main limitations of the institution. It is pertinent to note that the faculty members of SCERT repeatedly demanded the formulation of rules and regulations is one of the major issues prevailing in SCERT.

**Table 4.54: Suggestions for Improvement of Institutions**

SCERT	DTERT
<ul style="list-style-type: none"> <li>• There must be approved rules.</li> <li>• Appointment of enough faculty members.</li> <li>• Coordination of activities between other agencies like SSA, DPI, SIEMAT etc.</li> <li>• Linkage with other SCERTs</li> <li>• Enough planning before the implementation of programmes</li> <li>• Idea of educational complex</li> </ul>	<ul style="list-style-type: none"> <li>• Linkage with agencies like SSA, DHSE etc</li> <li>• Appointment of further faculty members</li> <li>• Assign more duties to DTERT in the area of secondary and higher secondary</li> <li>• Linkage with other SCERTs</li> <li>• More professionalism in the area of textbook preparation</li> </ul>

Regarding the betterment of institutions, both SCERT and DTERT faculty members suggested that the appointment of sufficient academic staff and coordination with other agencies are needed. So it is inferred that shortage of the faculty members is the main constraint facing by

both SCERT and DTERT. DTERT again pointed out that more duties should be assigned to them especially in the area of secondary and higher secondary education and more professionalism should be maintained in the area of textbook preparation. So it is interpreted that DTERT would like to enhance its duties and responsibilities like that of SCERT Kerala.

#### 4.4 ANALYSIS OF THE RESPONSES TO THE QUESTIONNAIRE FOR THE BENEFICIARIES OF SCERT AND DTERT

##### Responses of Beneficiaries of SCERT and DTERT regarding its Functions

This questionnaire was developed with a view to collecting the observations of beneficiaries of SCERT Kerala and DTERT Tamil Nadu regarding the functions of these institutions and get an idea about how they are benefited by these institutions.

The questionnaire has seventeen parts. Detailed analysis of each session is given below.

##### Part I: Profile of the Sample

This part of the questionnaire was used for collecting personal data from the beneficiaries (teachers from upper primary schools) of SCERT and DTERT. The following table gives in detail the analysis of personal data.

**Table - 4.55: Socio Demographic Background of Beneficiaries**

Items		SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Gender	Male	62	31.0	80	40.0	3.54	0.060
	Female	38	69.0	120	60.0		
Age	<30	4	2.0	8	4.0	2.98	0.395
	30 – 39	64	32.0	58	29.0		
	40 – 49	121	60.5	117	58.5		
	50 – 59	11	5.5	17	8.5		
School	Govt	173	86.5	180	90.0	1.18	0.277
	Aided	27	13.5	20	10.0		
Educational qualification	PDC	111	55.5	186	93.0	73.58**	0.000
	Degree	84	42.0	13	6.5		
	PG	5	2.5	1	0.5		
Qualification	TTC	42	21.0	70	35.0	14.03**	0.001
	B.Ed	150	75.0	129	64.5		
	M.Ed	8	4.0	1	0.5		

Items		SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Teaching experience	Up to 5 years	28	14.0	42	21.0	3.4	0.183
	Between 5 - 15 years	127	63.5	116	58.0		
	Above 15	45	22.5	42	21.0		

\*\* : - Significant at 0.01 level

Table 4.55 shows that males constitute 31% among the beneficiaries of SCERT and 40% in DTERT. The Chi Square test shows that the difference is insignificant.

The percentage between 40 – 49 age group is 60.5% in SCERT and 50.5% in DTERT. The representation of 50 – 55 age group is 5.5% in SCERT 8.5% in DTERT. The Chi Square test shows that regarding age-wise distribution of the sample of beneficiaries of SCERT and DTERT the difference visible is insignificant.

In the sample, representation of government school teachers is 86.5% in Kerala and 90% in Tamil Nadu. The difference is insignificant. Representation of teachers with pre-degree is nearly half (50.5%) in Kerala and 19.3% in Tamil Nadu. Teachers with degree constitute 42% in Kerala and 6.5% in Tamil Nadu. Representation of teachers having post graduation is 2.5% in Kerala and 0.5% in Tamil Nadu. The difference is significant at 0.1 level. Regarding professional qualification, teachers with TTC are 21% and 35%, teachers with B.Ed degree are 75% and 64%, teachers with M.Ed degree are 4% and 0.5% in SCERT and DTERT respectively. The difference is significant at 0.01 level. So it is interpreted that, in the sample, teachers of Kerala are better qualified in terms of general qualification and professional qualification.

In the sample about teaching experience, teachers coming under '5-15 years' category is 63.5% and 58% and 'above 15 years' category is 22.5% and 21% in Kerala and Tamil Nadu respectively.

There is no significant difference between beneficiaries of SCERT and DTERT regarding their teaching experience.

##### Part II : Curriculum

This part of the questionnaire had five questions, related to different aspects of curriculum. The responses of teachers in this regard were analysed and the details of the analysis done are given in the following tables.

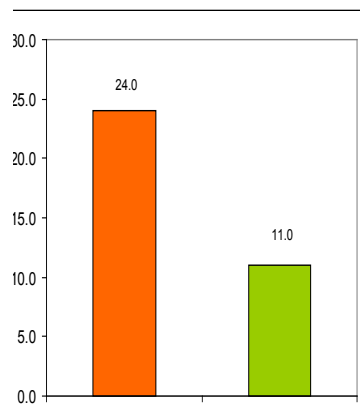
**Table - 4.56 Responses of Beneficiaries regarding Curriculum**

Items	Response	SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Opportunity in participating the curriculum developing process of the state	Yes	48	24.0	22	11.0	11.71**	0.001
	No	152	76.0	178	89.0		
Chance to know the curriculum changes before it is implemented	Yes	99	49.5	17	8.5	81.64**	0.000
	No	101	50.5	183	91.5		
Agency that arranges workshop/training to know about the curriculum changes	SCERT-DTERT	0	0.0	61	30.5	71.98**	0.000
	DIET	70	35.0	167	83.5	97.42**	0.000
	SSA	180	90.0	174	87.0	0.88	0.347

\*\* : - Significant at 0.01 level

From the Table 4.56, it is clear that 24% beneficiaries of SCERT get the opportunity in the curriculum development process of the state whereas its percentage is very low(11% ) in Tamil Nadu. The Chi Square statistics (11.71) shows that this difference is statistically significant at 0.01 level. So it is inferred that the opportunity to participate in the curriculum development process is high among the beneficiaries of SCERT than DTERT.

The graphical representation of the comparison of opportunity to the beneficiaries in the curriculum developing process of the state is given in Fig. 4.9.



**Fig. - 4.9 Comparison of Opportunity to Participate in the Curriculum Developing Process of the State**

Regarding the opportunity to know about the curriculum, nearly half (49.5%) of the teachers from Kerala and only 8.5% from Tamil Nadu get the knowledge about the curriculum before it is implemented. The Chi Square statistics (81.64) shows that there is significant difference at the level of 0.01. So it is inferred that teachers of Kerala are getting more chance to know about the curriculum changes before it is implemented.

The table also reveals that regarding training, DIET arranges 35% workshop/training in Kerala and 83.5 % in Tamil Nadu, SSA arranges 90 % in Kerala and 87% in Tamil Nadu. So it is interpreted that regarding the role played by different agencies, DIET and SSA show a significant role both in Kerala and Tamil Nadu. The role of SSA is crucial in this matter in both the states. Role of DTERT (30.5%) is also seen to be significant in this regard. But SCERT has no role in providing direct teacher training.

**Table -4.57 Sources of Information about the Curriculum before Implementation**

Sources of Information	SCERT		DTERT		$\chi^2$	P
	Count	Percent	Count	Percent		
Workshop	39	19.5	13	6.5	14.94**	0.000
Training	109	54.5	43	21.5	46.22**	0.000
Documented material	90	45.0	23	11.5	55.37**	0.000

\*\* : - Significant at 0.01 level

Table 4.57 shows that in Kerala, above half (54.5 %) of the teachers get the chance to know about the curriculum through training before its implementation. But in Tamil Nadu, its percentage is 21.5. The Chi Square statistics shows a significant difference at 0.01 level between the teachers of Kerala and Tamil Nadu. So it is interpreted that training is the main source to make teachers aware about the curriculum changes and teachers of Kerala get more chance to know about the curriculum before implementation, through the training process.

### Part III: Textbooks

This part of the questionnaire also had five questions related to different aspects of textbooks. The responses of teachers in this regard were analysed and the details of the analysis done are given in the following tables.



**Table - 4.58 Responses of Beneficiaries regarding Textbooks**

Items	Response	SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Opportunity to participate the text book developing processes	Yes	42	21.0	6	3.0	30.68**	0.000
	No	158	79.0	194	97.0		
Chance to know about the revised text book before its implementation	Yes	100	50.0	10	5.0	101.57**	0.000
	No	100	50.0	190	95.0		
Agency that arranges workshop/training about the new text books	SCERT-DTERT	0	0.0	64	32.0	76.19**	0.000
	DIET	73	36.5	169	84.5	96.41**	0.000
	SSA	182	91.0	177	88.5	0.68	0.410
	Other agencies	1	0.5	0	0.0	1	0.317

\*\* : - Significant at 0.01 level

Table 4.58 shows that 21% teachers from Kerala and 3% from Tamil Nadu get opportunity to involve in the textbook developing process of the state. The Chi Square statistics (30.68) shows that there is significant difference at the level of 0.01. So it is interpreted that Kerala SCERT provides more opportunity to teachers for participating in the textbook development process of the state than DTERT.

The graphical representation of the comparison of opportunity of the beneficiaries in the textbook developing process of the state is given in Fig. 4.10.



**Fig.- 4.10 Comparison of Opportunity to Participate in the Textbook Developing Process of the State**

Regarding the opportunity to know about revised textbooks, half of the teachers (50%) from Kerala and 5% from Tamil Nadu opined that they get the knowledge before its implementation. The Chi Square statistics reveals that teachers of Kerala are getting more chance to know about the revised textbook before its implementation. It is interpreted that in Kerala, through training or workshop, teachers become aware of the textbook before it is implemented for classroom transaction.

The table also reveals that regarding training, DIET arranges 36.5% in Kerala and 84% in Tamil Nadu, SSA arranges 91 % in Kerala and 88% in Tamil Nadu. So it is interpreted that regarding the role played by different agencies, DIET and SSA show a significant role both in Kerala and Tamil Nadu. SSA plays a crucial role in this matter. Regarding the level of role played by the agencies engaged in the task of arranging workshop/training, significant difference (0.01) is visible in the case of SCERT and DTERT, the role of DTERT is also seen significant in this regard. But SCERT has no direct involvement in teacher training. So it is inferred that in Tamil Nadu along with DIET and SSA, DTERT too has a major role in teacher training.

**Table - 4.59 Sources of Information about the Textbook before Implementation**

Sources of Information	SCERT		DTERT		$\chi^2$	P
	Count	Percent	Count	Percent		
Workshop	49	24.5	12	6.0	26.48**	0.000
Training	118	59.0	40	20.0	63.65**	0.000
Documented material	97	48.5	17	8.5	78.52**	0.000

\*\* : - Significant at 0.01 level

Table 4.59 shows that in Kerala above half (59 % ) of teachers get chance to know about the new textbook through training before it is implemented. But in Tamil Nadu only 20% get it through training before implementation. The Chi Square statistics (63.65) shows a significant difference at 0.01 level between the teachers of Kerala and Tamil Nadu in the matter of getting chance to know the textbook before implementation. So it is interpreted that in Kerala, trainings are arranged to teachers well in advance before the implementation of textbooks.

#### Part IV: Training

In order to elicit the responses about the general trend of the training programme they received, the participants were asked five questions. Analysis of the data is given in the table.

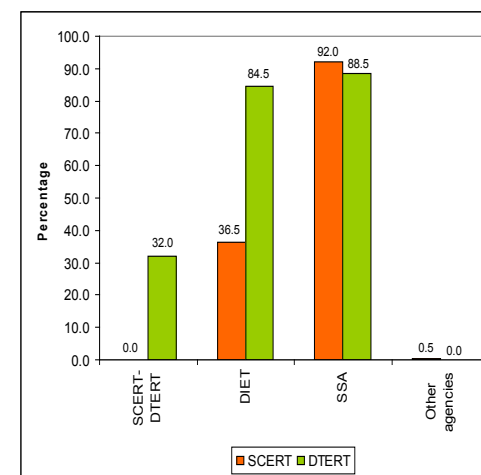
**Table - 4.60 Responses of Beneficiaries regarding Training in General**

Items	Response	SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Agency that arrange in- service training	SCERT-DTERT	0	0.0	64	32.0	76.19**	0.000
	DIET	73	36.5	169	84.5	96.41**	0.000
	SSA	184	92.0	177	88.5	1.39	0.238
	Other agencies	1	0.5	0	0.0	1	0.317
Areas on which in -service training programmes are arranged	Approach	127	63.5	15	7.5	136.96**	0.000
	Pedagogy	163	81.5	177	88.5	3.84*	0.050
	Content	111	55.5	141	70.5	9.65**	0.002
	Evaluation	129	64.5	25	12.5	114.2**	0.000
	Teaching aids	55	27.5	25	12.5	14.06**	0.000

\*\*:- Significant at 0.01 level

From the Table 4.60, it is revealed that in area of in-service training, DIET arranges 36.5% in Kerala and 84% in Tamil Nadu, SSA arranges 92% in Kerala and 88% in Tamil Nadu. So it is interpreted that regarding the role played by different agencies, DIET and SSA shows a significant role both in Kerala and Tamil Nadu. SSA plays a crucial role in this matter. Regarding the level of role played by the agencies engaged in the task of arranging workshop/training, significant difference (0.01) is visible in the case of SCERT and DTERT. The role of DTERT is also seen to be significant in this regard. But SCERT has no direct involvement in teacher training. So it is inferred that in Tamil Nadu, along with DIET and SSA, DTERT too has a major role in in-service training programme.

The graphical representation of the comparison of agencies that arrange in- service training programme in Kerala and Tamil Nadu is given in Fig. 4.11.



**Fig. - 4.11 Comparison of Agencies that Arrange In- service Training Programmes in Kerala and Tamil Nadu**

Majority (63.5%) of teachers in Kerala and a few number (7.5%) of teachers in Tamil Nadu receive in-service training in the area of approach, and the great majority of teachers both in Kerala and Tamil Nadu (81.5% and 88.5% respectively) receive training in pedagogy and 55.5% teachers in Kerala and 70.5% teachers in Tamil Nadu receive training in the area of content, 64.5% teachers in Kerala and 12.5% of teachers in Tamil Nadu receive training in the area of evaluation and 27% of teachers in Kerala and 12.5% of teachers in Tamil Nadu receive training in the area of teaching aids.

Regarding the training in approach, the Chi Square statistical value (136.96) reveals that position of teachers in Kerala is better. But regarding the aspects of pedagogy, position of Tamil Nadu teachers are better. In the matter of training of content the Chi Square statistics (9.65) reveals that there is significant difference at the level of 0.01 between teachers of Kerala and Tamil Nadu. The Tamil Nadu teachers are placed in a better position in this regard. However regarding training on evaluation and teaching aids, Kerala teachers are placed in a better position. So it appears that SCERT is concentrating on approach, evaluation and teaching aids while DTERT concentrates on pedagogy and content.

**Table - 4.61 Responses of Beneficiaries regarding the Efficiency of Training**

Items	Response	SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Usefulness of in-service training	Very useful	91	45.5	37	18.5	36.44**	0.000
	Useful to some extent	103	51.5	145	72.5		
	To a limited extent	6	3.0	16	8.0		
	Not at all	0	0.0	2	1.0		
Satisfaction with the in-service programmes	Fully	87	43.5	150	75.0	47.1**	0.000
	Partially	102	51.0	39	19.5		
	To a limited extent	11	5.5	9	4.5		
	Not at all	0	0.0	2	1.0		
Self assessment about the competency	Substantially increased	92	46.0	88	44.0	12.94**	0.005
	Increased	107	53.5	97	48.5		
	Static	1	0.5	10	5.0		

\*\* : - Significant at 0.01 level

Regarding the benefit received from in-service training, Table 4.61 reveals that nearly half (45%) of the teachers from Kerala and 18.5% teachers from Tamil Nadu opined that it is 'very useful', above half (51.5%) of the teachers from Kerala and majority (72.5%) of teachers from Tamil Nadu rated it as 'useful to some extent'. Chi Square value (36.44) shows that there is significant difference at the level of 0.01 in this regard. So it is inferred that teachers of Kerala entertain better appreciation on the benefit received from in-service training.

Regarding the level of satisfaction on in-service training programme, Chi Square statistics (47.1) reveals that there is significant difference at the level of 0.01 between the teachers of Kerala and Tamil Nadu. So it is interpreted that in the matter of the satisfaction received from training, the position of teachers of Tamil Nadu is high.

However regarding the impact on competency, teachers of Kerala maintain a high opinion since Chi Square statistics (12.94) reveals that there is significant difference at 0.01 level between teachers of Kerala and Tamil Nadu in acquiring competency. So it is interpreted that Kerala teachers are acquiring more competency through in-service training.

**Part V: Classroom Transaction**

This part of the questionnaire was intended to obtain data regarding different aspects on training in classroom transaction.

**Table - 4.62 Opinion of Beneficiaries regarding Classroom Transaction**

Items	Response	SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Periodicity of training in classroom transaction	Periodically	116	58.0	37	18.5	66.06**	0.000
	When curriculum and text book changes	130	65.0	129	64.5	0.01	0.917
	Very rarely	12	6.0	21	10.5	2.68	0.102
	Not at all	0	0.0	6	3.0	6.09*	0.014
	Aspects of the class room transaction emphasized in training	Theoretical	6	3.0	11	5.5	7.32*
Practical	25	12.5	42	21.0			
Both	169	84.5	147	73.5			
Chance for demonstration classes on classroom transaction	Yes	155	77.5	52	26.0	106.22**	0.000
	No	45	22.5	148	74.0		
Rating of the ability to acquire the classroom transaction process	To a great extent	125	62.5	23	11.5	161.01**	0.000
	To some extent	48	24.0	174	87.0		
	To a limited extent	27	13.5	3	1.5		

\*\* : - Significant at 0.01 level \* : - Significant at 0.05 level

Regarding the frequency of training in classroom transaction, Chi Square statistics (66.06) shows a significant difference at the level of 0.01. It means that teachers in Tamil Nadu do not get periodic training in classroom transaction. 65% of teachers in Kerala and 64.5% from Tamil Nadu stated that they get training in classroom transaction when

the curriculum and textbooks change. Chi Square statistics (0.01) shows no significant difference in this regard. So it is inferred that both teachers of Kerala and Tamil Nadu get training when the curriculum and text books change.

Regarding the question, on 'which aspects of classroom transaction is emphasized in training', 3.5% from Kerala and 5.5% from Tamil Nadu identified theoretical aspects, 12.5% from Kerala and 21% from Tamil Nadu identified practical aspects while 84.5% from Kerala and 73.5% Tamil Nadu identified both. Though Chi Square statistics (7.3) shows significant difference at 0.05 level, it is pertinent to note that a vast majority of teachers in both states stated that both theoretical and practical aspects are emphasized in the training of classroom transaction.

The table also reveals that though 75% teachers in Kerala have opportunity to get demonstration of classroom transaction, only 26% from Tamil Nadu gets such an opportunity. The Chi Square statistics (106.22) shows significant difference at the level of 0.01 in this regard. So it can be interpreted that demonstration of classroom transaction is a major component of teacher training in Kerala.

Regarding the level of internalising the classroom transaction process, Chi Square statistics (161.01) shows significant difference at the level of 0.01. This means that teachers in Kerala are in a better position in this regard. The reason for the better internalization of Kerala teachers may be the demonstration of the classroom transaction during training programme.

## Part VI: Content Enrichment

This part was used for obtaining data regarding the training teachers received on the content part of the textbook. The respondents were asked to furnish about the chance of getting training on content and the periodicity of the training. Analysis of the data is given in the table.

**Table - 4.63 Opinion of Beneficiaries regarding Content Enrichment**

Items	Response	SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Ability to update knowledge in the subject area through training	Yes	166	83.0	174	87.0	1.25	0.263
	No	34	17.0	26	13.0		

Items	Response	SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Periodicity of updation of subject area through training	Periodically	81	40.5	27	13.5	36.99**	0.000
	When curriculum and text book changes	85	42.5	144	72.0		
	Rare occasion	3	1.5	6	3.0	1.02	0.312

\*\* : - Significant at 0.01 level

Table 4.63 shows that 83% teachers in Kerala and 87% in Tamil Nadu are able to update their knowledge through training. The Chi Square statistics (1.25) shows that there is no significant difference in this aspect. 40.5% from Kerala and 13.5% from Tamil Nadu stated that there is periodic training for content enrichment, 42.5% teachers in Kerala and 72% from Tamil Nadu stated that they are getting training when the curriculum and textbooks change. Chi Square statistics (36.99 and 35.56) shows that there is significant difference at the level of 0.01 in this regard. Only 1.5% teachers in Kerala and 3% teachers in Tamil Nadu stated that they are getting training only on rare occasions. It is inferred that though in both the states there are training when curriculum and textbooks change, in Kerala, the practice is periodic teacher training in content enrichment. So quite often in Kerala there is no need for separate teacher training on content enrichment consequence to the changes in curriculum and textbook.

## Part VII: Evaluation

In this part, the respondents were asked about their involvement in the evaluation process of their state, their competency to evaluate the children etc.

The following table gives in detail the analysis of data.

**Table - 4.64 Opinion of Beneficiaries regarding Evaluation**

Items	Response	SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Chance to involve in the evaluation process	Yes	62	31.0	55	7.5	35.53**	0.442
	No	138	69.0	145	92.5		

Items	Response	SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Mode of awareness about the evaluation strategy	Workshop	40	20.0	26	13.0	3.56	0.059
	Training	177	88.5	135	67.5	25.7**	0.000
	Documented material	81	40.5	9	4.5	74.32**	0.000
	Media	10	5.0	3	1.5	3.9*	0.048
Opinion about the competency in evaluating the child through training	Yes	189	94.5	190	95.0	0.05	0.823
	No	11	5.5	10	5.0		

\*\* : - Significant at 0.01 level \* : - Significant at 0.05 level

Table 4.64 shows that only 31% of teachers of Kerala and 7.5% from Tamil Nadu get opportunity to involve in the evaluation processes of the state. Chi Square statistics (35.53) shows that there is significant difference at 0.01 level between the teachers of Kerala and Tamil Nadu in this regard.

The graphical representation of the comparison of opportunity to involve in the formulation of evaluation process of the state is given in Fig. 4.12.

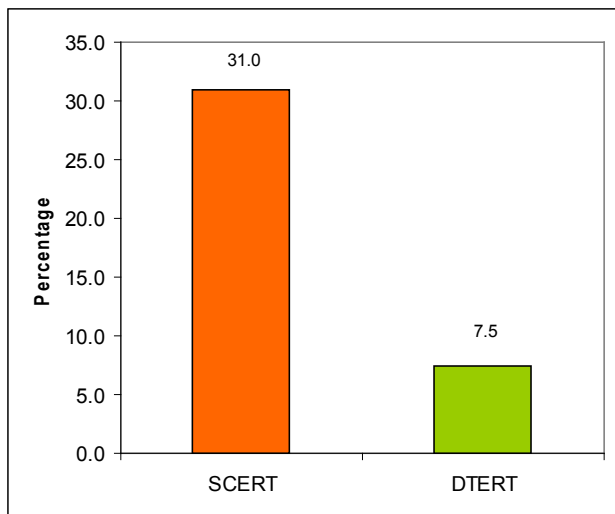


Fig. - 4.12 Comparison of Opportunity to Involve in the Formulation of Evaluation Process of the State

Majority (88.5% ) of teachers from Kerala and 67.5% from Tamil Nadu get the awareness about evaluation through training process. A great majority of teachers from Kerala and Tamil Nadu (94.5% and 95% respectively ) stated that they become competent enough in evaluating the child through training. Chi Square statistics (0.05) shows that there is no significant difference between the teachers from Kerala and Tamil Nadu regarding the competency acquired through training. Therefore it is interpreted that in Kerala, teachers get more opportunity in participate in the evaluation process of the state and both in Kerala and Tamil Nadu the training processes related to evaluation is fine.

The graphical representation of the comparison of competency in evaluating children through training is given in Fig. 4.13.

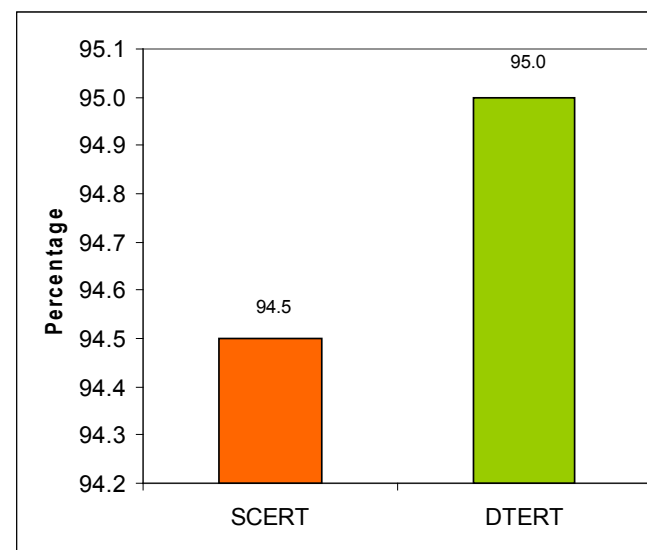


Fig.-4.13 Comparison of the Competency in Evaluating the Children through Training

**Part VIII: Professional Growth**

This part of the questionnaire was used to elicit the opinion about the preparation needed for the academic growth of respondents. The respondents were asked to furnish the materials they needed other than their professional qualification, any training or course they expected for improving teaching skills etc. Analysis of data is given below.

**Table - 4.65 Opinion of Beneficiaries regarding Professional Growth**

Items	Response	SCERT		DTERT		$\chi^2$	p
		Count	Percent	Count	Percent		
Additional academic preparations needed further to enhance professional performance	Textbook	192	96.0	188	94.0	0.84	0.359
	Handbook	198	99.0	189	94.5	6.44*	0.011
	Evaluation materials	185	92.5	189	94.5	0.66	0.417
	Training	187	93.5	182	91.0	0.87	0.350
	Any other	166	83.0	69	34.5	97.06**	0.000
Programmes of SCERT/DTERT that ensure better performance of teachers	Organizing curricular activities	177	88.5	193	96.5	9.23**	0.002
	Undertaking research projects	89	44.5	12	6.0	78.53**	0.000
	Undertaking extension activities	90	45.0	14	7.0	75.05**	0.000
Necessity of special courses for developing teaching skills	Yes	181	90.5	180	90.0	0.03	0.866
	No	19	9.5	20	10.0		
Opinion about the best institution to provide such courses	SCERT-DTERT	102	51.0	162	81.0	40.11**	0.000
	DIET	35	17.5	30	15.0	0.46	0.498
	SSA	76	38.0	27	13.5	31.39**	0.000
	SIEMAT	4	2.0	1	0.5	1.82	0.177
	Any other	0	0.0	2	1.0	2.01	0.156

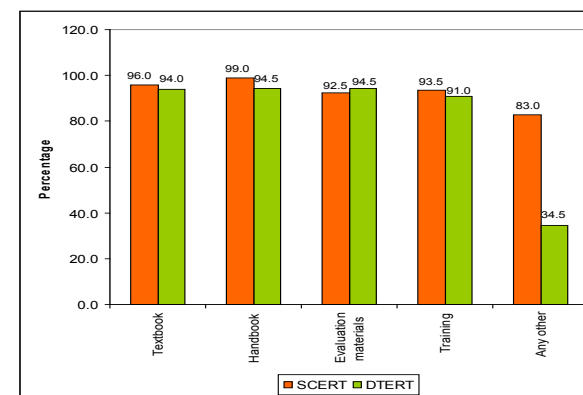
\*\* - Significant at 0.01 level \* - Significant at 0.05 level

Regarding the additional academic preparations to be made for further enhancement of academic performance, a great majority of teachers from Kerala and Tamil Nadu (96% and 94% respectively) demanded textbooks and another good majority from Kerala and Tamil Nadu (99% and 94.5% respectively) demanded handbooks. 92.5% from Kerala and 94.5% from Tamil Nadu demanded evaluation materials, 93.5% from Kerala and 91% from Tamil Nadu demanded training, 83% from Kerala and 34.5% from

Tamil Nadu demanded other things (special courses). The Chi Square statistics shows no significant difference in this regard. It is pertinent to note that more than 90% teachers from both Kerala and Tamil Nadu entertain the view that textbook, evaluation materials and training are essential to enhance professional performance.

Regarding the need of handbook, though Chi Square statistics (6.4) shows significant difference at 0.05 level, in terms of percentage, 99% teachers of Kerala and 94.5% of Tamil Nadu emphasized the need of handbook. So it is interpreted that, even though there is textbooks and training, teachers of both the states consider hand book as one of the best tools for enhancing professional competency. There is a strong demand from the part of teachers of Kerala and Tamil Nadu for textbooks, handbooks, evaluation materials and training for their professional growth.

The graphical representation of the comparison of additional academic preparations needed for further enhancement of professional performance is given in Fig. 4.14.



**Fig. - 4.14 Comparison of the Additional Academic Preparations to be needed for Further Enhancement of Professional Performance**

Regarding the programmes which ensure better performance of teachers, 88.5% teachers from Kerala and 96.5% from Tamil Nadu identified 'organizing curricular activities', 44.5% from Kerala and 6% from Tamil Nadu identified 'undertaking research projects' and 45% teachers from Kerala and 7% from Tamil Nadu identified 'undertaking extension activities'.

Though Chi Square statistics shows the significant difference at the level of 0.01 between teachers of Kerala and Tamil Nadu, the difference

is very high in relation to undertaking research and extension activities. This means that DTERT is not effectively undertaking research projects and extension activities so as to benefit teachers. And the performance of Kerala SCERT is also not commendable since only less than 50% of teachers of Kerala appreciated the performance of SCERT in this regard.

More than 90% of teachers from both Kerala and Tamil Nadu feel that special courses for developing teaching skills are needed for teachers. There is no significant difference in this regard. Regarding the institutions that provide such courses 51% teachers of Kerala and 81% of teachers from Tamil Nadu prefer SCERT/ DTERT, 17.5% from Kerala and 15% from Tamil Nadu prefer DIET, 38% from Kerala and 13.5% from Tamil Nadu prefer SSA, 2% from Kerala and 1.8% from Tamil Nadu prefer SIEMAT, none of the teachers from Kerala and 2.01% from Tamil Nadu prefer other institutions. Chi Square statistics (40.11, 31.39) shows significant difference between the teachers of Kerala and Tamil Nadu in this regard. However, 51% teachers of Kerala prefer SCERT as the best institution for the purpose and 81% in Tamil Nadu selected DTERT as the best institution. However, when 38% from Kerala selected as SSA as best institution, only 13.5% in Tamil Nadu prefer SSA. So it is interpreted that though in Kerala, teachers treated SSA as a suitable institution for training along with SCERT, those in Tamil Nadu consider DTERT as the only suitable institution for developing teaching skills.

The graphical representation of the comparison of the institutions which provide courses for professional growth is given in Fig. 4.15.

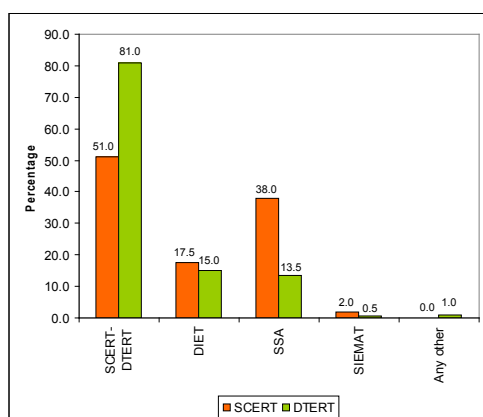


Fig. - 4.15 Comparison of the Institutions which Provide Courses for Professional Growth

### Part IX: Special Education

In this area, the respondents were asked to furnish details regarding the training they received on areas of Special education.

Table - 4.66 Opinion of Beneficiaries regarding Special Education

Items	Response	SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Means to teach the children with special needs in your state	Special school	115	57.5	131	65.5	2.7	0.100
	Inclusive Education	153	76.5	42	21.0	123.29**	0.000
	Any other	12	6.0	3	1.5	5.61*	0.018
Opportunity of attending training to teach the children with special needs	Yes	124	62.0	13	6.5	136.78**	0.000
	No	76	38.0	187	93.5		
Rating of the benefits of training	Very useful	96	77.4	1	7.7	39.73**	0.000
	Useful to some extent	23	18.5	8	61.5		
	To a limited extent	5	4.0	2	15.4		
	Not at all	0	0.0	2	15.4		

\*\* - Significant at 0.01 level \* - Significant at 0.05 level

Table 4.66 shows that 57.5% teachers from Kerala and 65.5% from Tamil Nadu stated that, there are special schools for catering the children with special needs. 75% of teachers in Kerala and 21% from Tamil Nadu stated that there is inclusive education. Chi Square statistics (123.29) shows that there is significant difference at 0.01 between Kerala and Tamil Nadu. However regarding training to teach the children with special needs, Kerala is in a high position (62%). But its percentage in Tamil Nadu is only 6.5. Since 77.4% teachers from Kerala and 1% teachers from Tamil Nadu rated the training programmes as 'very useful', it is interpreted that Kerala teachers are getting more chance in this regard and the training programme in Kerala may be considered as more effective as far as the training based on special education is concerned.

### Part X: Non-formal /Adult Education

Implementation of Non-formal /Adult education programme of respective states are sort out in this part. The respondents were asked to furnish the details regarding the implementing agency of Non-formal education, their role in the propagation of Non-formal education of the state and the quality of training they received. The responses of teachers were analysed and the details of the analysis is given in the following table.

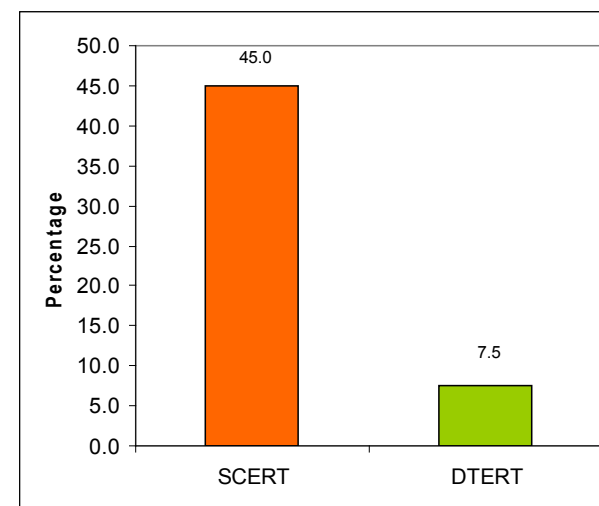
**Table- 4.67 Opinion of Beneficiaries regarding Non-formal / Adult Education**

Items	Response	SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Opportunity to work in the Non formal / Adult education programme	Yes	90	45.0	15	7.5	72.64**	0.000
	No	110	55.0	185	92.5		
Mode of implementation of Non-formal/ Adult education programme	Through SCERT-DTERT	74	37.0	11	5.5	59.29**	0.000
	Literacy mission	184	92.0	151	75.5	20**	0.000
	SRC	1	0.5	16	8.0	13.82**	0.000
Opinion about the training received on Non -formal/Adult education areas	Yes	99	49.5	20	10.0	74.66**	0.000
	No	101	50.5	180	90.0		
Opinion about the benefits of training	Yes	96	97.0	12	60.0	27.11**	0.000
	No	3	3.0	8	40.0		

\*\* : - Significant at 0.01 level

Table 4.67 shows that 45% teachers from Kerala and 7.5% from Tamil Nadu stated that they are getting opportunity to work in the Non-formal/Adult education programme of the state. Chi Square statistics (72.64) shows a significant difference between the teachers of Kerala and Tamil Nadu in the matter of getting opportunity to work in the area of Non-formal/Adult education programme at 0.01 level.

The graphical representation of the comparison of the chance to work in the Non-formal / Adult education programme of the state is given in Fig. 4.16.



**Fig.- 4.16 Comparison of the Chance to Participate in the Non-formal / Adult Education Programmes of the State**

37% teachers from Kerala and 55% from Tamil Nadu stated that in their state Non-formal/Adult education programmes are implemented through SCERT/DTERT, 92% from Kerala and 75.5% from Tamil Nadu stated that it is through the literacy mission, 0.5% from Kerala and 8% from Tamil Nadu stated that it is through SRC. Regarding the training on Non-formal/Adult education, 49.5% of teachers of Kerala and 10% from Tamil Nadu stated that they are getting training on non-formal/adult education areas. Among the teachers who are getting training on Non-formal/Adult education areas, 97% from Kerala 60% from Tamil Nadu opined that the training is beneficial to them. Chi Square statistics (72.64, 59.29, 20, 13.82, 74.66 and 27.11) shows that there is significant difference at 0.01 level between the teachers of Kerala and Tamil Nadu in the matter of Non-formal/Adult education areas. Therefore it is interpreted that Kerala is better than Tamil Nadu in giving training in the area of Non-formal/Adult education. With regard to the benefits of the training, the position of Kerala is better. The reason for this situation may be that in Kerala SCERT, there is a separate department for implementing the activities of Non-formal/Adult Education. They prepare textbooks, handbooks and evaluation material for the non-formal learners and also provide regular training for the tutors of the Non-formal/Adult education learners.



### Part XI :Educational Technology

In this area the respondents were asked to furnish their chances for the utilization of the modern technological equipments in the classroom and the agency that helps them to get knowledge in this area. Details of analysis is given.

**Table - 4.68 Opinion of Beneficiaries regarding Educational Technology**

Items	Response	SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Chance to utilize the technological equipments	Yes	154	77.0	156	78.0	0.06	0.811
	No	46	23.0	44	22.0		
Mode by which acquire the ability to use the technology	Through formal training given by SCERT-DTERT	32	16.0	16	8.0	6.06*	0.014
	Edusat	9	4.5	19	9.5	3.84	0.050
	Training through IT @ school	166	83.0	110	55.0	36.65**	0.000
	Any other	0	0.0	9	4.5	9.21**	0.002

\*\* : - Significant at 0.01 level \* : - Significant at 0.05 level

Table 4.68 discloses that majority of teachers from Kerala and Tamil Nadu (77% and 78% respectively) get opportunity to utilize the technological equipments in their classroom. Chi Square statistics (0.06) shows that there is no significant difference between the teachers of Kerala and Tamil Nadu in this regard.

16% teachers from Kerala and 8% from Tamil Nadu acquired the ability to use the technology in the classroom through formal training of SCERT / DTERT, 4.5% Kerala and 9.5% from Tamil Nadu through Edusat, and 83% from Kerala and 55% from Tamil Nadu through IT@ School. Though Chi Square statistics (36.65) shows that there is significant difference between the percentage of teachers who are getting training through IT@ school in Kerala and Tamil Nadu, it is interpreted that IT@ school is the leading institution for providing training in Educational Technology in both the states.

### PART XII: RESEARCH

This part was used for collecting data regarding the research experience and aptitude of the respondents. Eight questions were asked to be furnished by the respondents. The details of the analysis are given in Table 4.67

**Table - 4.69 Opinion of Beneficiaries regarding Research**

Items	Response	SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Opportunity to participate in the educational research programmes	Yes	34	17.0	14	7.0	9.47**	0.002
	No	166	83.0	186	93.0		
Opportunity to know the findings and suggestions of the educational research	Yes	72	36.0	50	25.0	5.71*	0.017
	No	128	64.0	150	75.0		
Opportunity to implement the suggestions of research	Yes	64	32.0	16	8.0	36**	0.000
	No	136	68.0	184	92.0		
Opinion about the changes in curriculum and text book according to the findings and suggestions of educational research	Yes	140	70.0	44	22.0	92.75**	0.000
	No	60	30.0	156	78.0		
Opportunity to get the research journal published from SCERT/DTERT	Yes	81	40.5	12	6.0	66.7**	0.000
	No	119	59.5	188	94.0		
Opportunity to do action researches	Yes	43	21.5	26	13.0	5.06*	0.024
	No	157	78.5	174	87.0		
Helping agency to conduct action research	SCERT	16	8.0	5	2.5	6.08*	0.014
	DIET	33	16.5	14	7.0	8.7**	0.003
	SSA	12	6.0	13	6.5	0.04	0.836
Opportunity to publish the reports of research studies in the journal of SCERT/DTERT	Yes	9	20.9	13	50.0	6.3*	0.012
	No	34	79.1	13	50.0		

\*\* : - Significant at 0.01 level \* : - Significant at 0.05 level

Table 4.69 shows that 17% of teachers from Kerala and 7% from Tamil Nadu are getting chance to participate in educational research programmes carried out by the State. Though Chi Square statistics (9.47) shows significant difference between teachers of Kerala and Tamil Nadu in this regard, it is interpreted that vast majority of teachers in both the states do not get chance to participate in the educational research programmes carried out by the state.

36% of the teachers of Kerala and 25% from Tamil Nadu are not getting the opportunity to know the findings and suggestions of the educational research carried out by the state. Though the Chi Square statistics (5.71) shows significant difference at the level of 0.05, majority of teachers in both the states are not getting any opportunity in this regard.

32% of teachers from Kerala and 8% from Tamil Nadu get opportunity to implement the suggestions of research carried out by the state. Though Chi Square statistics (36) shows significant difference at the level of 0.01, it is seen that in both the states majority of teachers do not get chance to implement the suggestions of research. Majority (70%) of teachers from Kerala 22% from Tamil Nadu opined that changes in textbook and curriculum may be brought in according to the findings and suggestions of educational research works carried out by the state. Chi Square statistics (5.06 and 6.3) shows that there is significant difference at the level of 0.05 in the matters of opportunity to do action research and opportunity to publish the result of research studies in the journal of SCERT / DTERT. Interestingly teachers of Kerala are in a better position in the matter of getting chance to do action research (21.5%) and teachers of Tamil Nadu are in a better position in getting chance to publish the result of research work (50%). The reason for the better involvement of Kerala teachers in research may be that Kerala teachers have better general and professional educational qualification. The reason for the better position of the Tamil Nadu teachers in publishing the result of research work may be the fact that the DTERT journal provides opportunities to teachers to contribute too.

The graphical representation of the comparison of opportunity to publish the reports of research studies in the journal of SCERT and DTERT is given in Fig. 4.17.

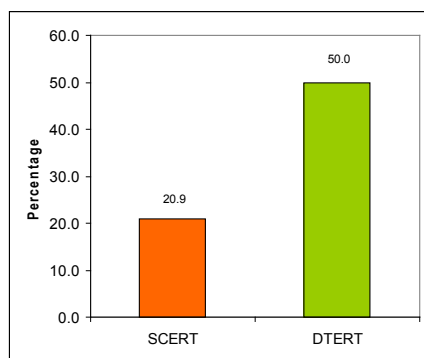


Fig.- 4.17 Comparison of Opportunity to Publish the Reports of Research Studies in the Journal of SCERT and DTERT

### Part XIII: Utilization of the Materials Developed by SCERT and DTERT

Materials prepared by the SCERT Kerala and DTERT Tamil Nadu were sort out in this part. The respondents were asked to furnish whether they get the materials prepared by these institutions in time. The following two tables explain the analysis of the data.

Table -4. 70 Opportunity to Refer Materials Developed by SCERT and DTERT

Items	SCERT	DTERT	c <sup>2</sup>	P
Curriculum related	161 (80.5)	126 (63)	15.11**	0.000
Textbook	181 (90.5)	145 (72.5)	21.49**	0.000
Handbook	188 (94)	136 (68)	43.92**	0.000
Evaluation related	168 (84)	127 (63.5)	21.71**	0.000
Special education	78 (39)	57 (28.5)	4.93*	0.026
Population / Adolescent education	29 (14.5)	28 (14)	0.02	0.886
Research based	17 (8.5)	10 (5)	1.95	0.163
Non-formal / Adult education	12 (6)	9 (4.5)	0.45	0.501
Any other	5 (2.5)	10 (5)	1.73	0.188

Table 4.70 shows that teachers of Kerala are in a better position for getting the opportunity to refer materials prepared by SCERT when compared to DTERT; curriculum related (80.5% and 63%), textbook (90.5% and 72.5%), handbook (94% and 68%), evaluation material (84% and 63.5%) and special education (78% and 28.5%). In the case of other materials, both SCERT and DTERT are not in a good position. So it is interpreted that SCERT provides more opportunity to its beneficiaries for referring the materials related to curriculum, textbook, evaluation and special education through training or workshops.

The graphical representation of the comparison of opportunity to refer the materials developed by SCERT and DTERT is given in Fig. 4.18.

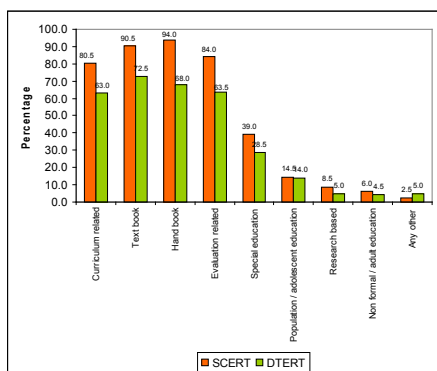


Fig.-4.18 Comparison of Opportunity to Refer Materials Developed by SCERT and DTERT

Table 4. - 71 Making the Materials Available in Proper Time

Items	SCERT	DTERT	$\chi^2$	P
Curriculum related	164 (82)	129 (64.5)	15.63**	0.000
Textbook	184 (92)	147 (73.5)	23.98**	0.000
Handbook	191 (95.5)	139 (69.5)	46.82**	0.000
Evaluation related	173 (86.5)	131 (65.5)	24.18**	0.000
Special education	83 (4)	59 (29.5)	6.29*	0.012
Population / Adolescent education	33 (16.5)	31 (15.5)	0.07	0.785
Research based	19 (9.5)	14 (7)	0.83	0.364
Non formal / Adult education	14 (7)	13 (6.5)	0.04	0.842
Any other	7 (3.5)	14 (7)	2.46	0.117

Table 4.71 shows that regarding opportunity for making available materials like curriculum related, textbook, handbook, and materials related to evaluation and special education, Chi Square statistics shows a high significant difference. This means that teachers of Kerala are far ahead when compared to the teachers of Tamil Nadu regarding availability of materials to its beneficiaries. It indicates that Kerala is very particular in making available these materials to teachers in proper time. But in the matter

of other materials like Population education, Non-formal education and research based, the position of both SCERT and DTERT is not commendable.

Part XIV: Co-curricular Area

This part was incorporated to know whether these two institutions have any activities for the development of co-curricular and extra-curricular activities of the children of the respective states. The details of analysis are given in the Table 4.72.

Table 4.-72 Opinion of Beneficiaries regarding Co-curricular Area

Items	Response	SCERT		DTERT		$\chi^2$	P
		Count	Percent	Count	Percent		
Opportunity to improve the co-curricular and extra-curricular activities of the child	Yes	185	92.5	166	83.0	8.4**	0.004
	No	15	7.5	34	17.0		
Opportunity to evaluate the co-curricular and extra-curricular activities of the child	Yes	80	40.0	164	82.0	74.15**	0.000
	No	120	60.0	36	18.0		
Opinion about the training to evaluate the co-curricular and extra-curricular activities	Yes	63	78.8	149	90.9	6.91**	0.009
	No	17	21.3	15	9.1		

\*\* : - Significant at 0.01 level

Table 4.72 shows that 92.5% of teachers of Kerala and 83% from Tamil Nadu are getting chance to improve on the co-curricular and extracurricular activities for the children through their curriculum. Though Chi Square statistics (8.4) shows that there is significant difference at 0.01 level between the teachers of Kerala and Tamil Nadu, it is pertinent to note that a vast majority of teachers in both states gave an affirmative answer in this regard. So it is inferred that in both the states teachers are getting chance to improve the co-curricular and extra-curricular activities for the children through their curriculum.

40% of teachers from Kerala and 82% from Tamil Nadu are getting chance to evaluate the co-curricular and extracurricular activities of the children. Chi Square statistics (74.15) shows that there is significant difference at 0.01 level between the teachers of Kerala and Tamil Nadu in this regard. So it is inferred that DTERT is giving due importance to co-curricular and extra-curricular activities compared to SCERT.

78.8% teachers from Kerala and 90.9% from Tamil Nadu are getting training to evaluate the co-curricular and extracurricular activities of the child. Chi Square statistics (6.91) shows that there is significant difference at the level of 0.01 between the teachers of Kerala and Tamil Nadu in this regard. Therefore it is interpreted that though the position of DTERT is rated as excellent in getting training to evaluate the co-curricular and extra-curricular activities, the position of SCERT is also good.

#### Part XV: Value Education

This part was used for collecting data to ascertain whether SCERT Kerala and DTERT Tamil Nadu provide any value-oriented education to children of the respective states. For this purpose, two questions were asked to the respondents. The following table gives in detail the analysis of the data.

**Table 4.-73 Opinion of Beneficiaries regarding Value Education**

Items	Response	SCERT		DTERT		c2	P
		Count	Percent	Count	Percent		
Opportunity to improve the value orientation	Yes	175	87.5	167	83.5	1.29	0.256
	No	25	12.5	33	16.5		
Mode of getting value orientation	Through handbook	136	68.0	46	23.0	81.66**	0.000
	Training	172	86.0	136	68.0	18.29**	0.000
	Document	4	2.0	8	4.0	1.37	0.241
	Video conferencing	1	0.5	4	2.0	1.82	0.177
	Any other	0	0.0	2	1.0	2.01	0.156

\*\*:- Significant at 0.01 level

Table 4.73, regarding the opportunity to provide value orientation through their curriculum, shows that there is no significant difference between the teachers of both Kerala and Tamil Nadu. 68% of teachers from Kerala and 23% from Tamil Nadu have opportunity to know about value education through handbook, 86% of from Kerala and 68% from Tamil Nadu through training, 2% from Kerala and 4% from Tamil Nadu through document and 4% from Kerala and 2% from Tamil Nadu through video-conferencing.

It seems that though in Kerala, handbook and training are the major sources for providing value orientation, in Tamil Nadu training is the major source for imparting value orientation to teachers. The reason may be the fact that SCERT is providing handbook along with textbook, which explains how to inculcate values through regular classroom transaction.

#### Part XVI : Library

This part of the questionnaire was used to know the involvement of teachers in the library of SCERT Kerala and DTERT Tamil Nadu. The respondents were asked three questions to furnish like membership in library, their chances to make use of the library etc. Analysis of the data is given in the table.

**Table - 4.74 Opinion of Beneficiaries regarding Library**

Items	Response	SCERT		DTERT		χ <sup>2</sup>	P
		Count	Percent	Count	Percent		
Membership of SCERT/DTERT Library	Yes	82	41.0	12	6.0	68.14**	0.000
	No	118	59.0	188	94.0		
Chance to make use of the SCERT / DTERT library	Yes	91	45.5	12	6.0	81.61**	0.000
	No	109	54.5	188	94.0		
Periodicity of making use of library	Periodically	43	47.3	1	8.3	51.63**	0.000
	Rare occasions	43	47.3	1	8.3		
	Not at all	5	5.5	10	83.3		

Table 4.74 shows that there is significant difference at 0.01 level between the teachers of Kerala and Tamil Nadu in the matter of using the library. 47.3% of the teachers from Kerala and 8.3% from Tamil Nadu stated that they are using it 'periodically', another 47.3% from Kerala and 8.3% from Tamil Nadu, stated that they are using it on 'rare occasions', 5.5% from Kerala and 83.3% from Tamil Nadu are not at all using the library of SCERT/DTERT library. Chi Square statistics (51.63) shows that there is significant difference at 0.01 level regarding the periodicity of utilizing library. It is seen that in Kerala, teachers are better in using the SCERT library. The reason for less use of DTERT library is that DTERT library is not open to the teaching community of the state.

### Part XVII: Involvement of the Respondents with SCERT and DTERT

This part checks the involvement of the respondents with SCERT and DTERT. Six items were provided and the respondents were asked to put tick mark against the correct responses. Analysis of this part is given in the table.

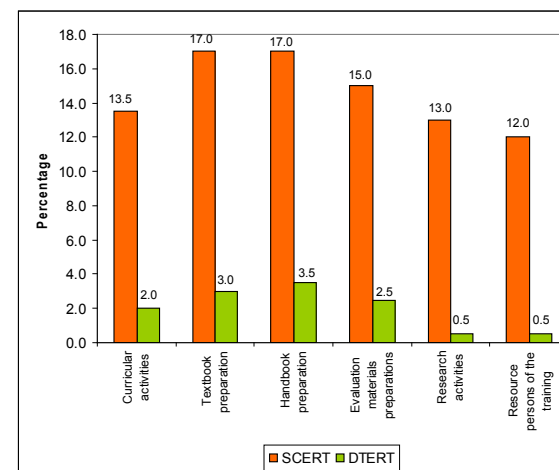
**Table - 4.75 Opinion of Beneficiaries regarding the Involvement in Various Activities**

Areas	Items	SCERT		DTERT		c <sup>2</sup>	P
		Count	Percent	Count	Percent		
Areas that have direct involvement with SCERT and DTERT	Curricular activities	27	13.5	4	2.0	18.5**	0.000
	Textbook preparation	34	17.0	6	3.0	21.78**	0.000
	Handbook preparation	34	17.0	7	3.5	19.81**	0.000
	Evaluation materials preparations	30	15.0	5	2.5	19.57**	0.000
	Research activities	26	13.0	1	0.5	24.82**	0.000
	Resource persons of the training	24	12.0	1	0.5	22.57**	0.000

\*\* : - Significant at 0.01 level

Table 4.75 shows that, 13.5% of the teachers of Kerala and 2% from Tamil Nadu are directly involving in curricular activities, 17% of teachers from Kerala and 3% from Tamil Nadu involving in textbook preparation, 17% of teachers from Kerala and 3.5% from Tamil Nadu are involving in handbook preparation, 15% from Kerala and 2.5% from Tamil Nadu are involving in evaluation material preparation, 13% of teachers from Kerala, 0.5% from Tamil Nadu is involving in research activities, 12% from Kerala and 0.5% from Tamil Nadu are acting as Resource Persons of SCERT/DTERT. Chi Square statistics (18.5, 21.78, 19.81, 19.57, 24.82 and 22.57) shows that there is significant difference at the level of 0.01 in the matter of involvement of teachers in Kerala and Tamil Nadu in various activities of SCERT and DTERT. It can be seen that SCERT is ensuring better participation of teachers in carrying out its activities.

The graphical representation of the comparison of the direct involvement of the beneficiaries in the activities of SCERT and DTERT is given in Fig. 4.19.



**Fig. - 4.19 Comparison of the Direct Involvement of the Beneficiaries in the Activities of SCERT and DTERT**

### 4.5 ANALYSIS OF INTERVIEW WITH THE NON-FORMAL EDUCATION FACULTY OF SCERT AND DTERT

In order to find out the activities and functions of Non-formal education departments of the SCERT Kerala and DTERT Tamil Nadu, the Investigator carried out a structured interview with the faculty members. From investigation, it is found that in Tamil Nadu, DTERT has no department for conducting the activities of Non-formal education and there is no faculty working in that area. The Tamil Nadu Literacy Mission Authority conducts activities for the learners of Non-formal education. But in Kerala state, while there is Kerala State Literacy Mission Authority (KSLMA), SCERT too has a major role in this area. In SCERT Kerala, there is a separate wing for performing the activities in the Non-formal education area. There are two posts in the Non-formal education area, i.e. the post of an Assistant Professor and a Research Officer. But the post of Assistant Professor is vacant due to the retirement of faculty member. The Research Officer who is appointed on deputation performs many activities in close collaboration with KSLMA.

The details of the interview are shown below.

**Table 4. - 76 Opinion of the Non-formal Education Faculty regarding Functions**

No	Questions	SCERT	DTERT
1	Number of faculty members working at present in the department	One	NA
2	Sufficiency of present staff pattern to carry out the functions of your department	No	NA
3	Management of the shortage of faculty members	Other faculty members take the responsibility	NA
4	Main activities/programmes of the department	Prepares curriculum up to class X Prepares textbooks up to class X, Prepares handbooks up to class X Prepares evaluation materials up to class X Conducts training for tutors Conducts awareness programmes to learners and DRU members of DIET Skill development programmes Research	NA
5	Funding agency of the department	Kerala State Literacy Mission and SCERT	NA
6	Collaboration with any other agencies like Saksharatha Mission	Yes	NA
7	Providing of materials to the stake holders in time	Yes	NA
8	Providing of training to the tutors of the stake holders	Yes	NA
9	Research based activity related to the department	Yes	NA
10	Modification of programmes based on the research study	Yes	NA
11	Support from SCERT/DTERT to carry out functions of the department	Yes	NA

Information drawn from the interview has been consolidated here.

- Regarding the number of faculty it is observed that in SCERT Kerala there is a separate wing for Non-formal education and only one faculty is working there at present.
- Regarding the sufficiency of staff pattern, the faculty expressed the view that the present staff pattern is not sufficient for the smooth functioning of the department. However the department has been conducting many activities utilizing the expertise of other faculty members of SCERT.
- The main activities of the department are:-
  - Preparation of textbook for the learners up to class X
  - Preparation of handbook for the learners up to class X
  - Preparation of evaluation material up to class X
  - Training the tutors.
  - Awareness programme for the DRU faculty members of DIETS
  - Skill development programme for the learners.
  - Research programmes related to Non-formal education
- Regarding the financial support for the department it is seen that KSLMA is the main funding agency. SCERT Kerala also provides necessary fund to the department.
- A strong academic collaboration between KSLMA and SCERT Kerala.
- SCERT develops textbooks, handbooks and other resource materials for the learners in time.
- The Non-formal education wing of SCERT Kerala provides training for the teachers of Non-formal education and also provide awareness programmes for the DRU faculty members in time.
- For the upliftment of the learners, the wing of SCERT Kerala carries research projects which are submitted to the Government and KSLMA for further planning.
- Based on the research study, activities of the department are modified. It is therefore concluded that SCERT Kerala and Kerala State Literacy Mission together provide sufficient support for the smooth functioning of the Non- formal education sector in the state of Kerala.

#### 4.6 ANALYSIS OF THE INTERVIEW WITH THE DIRECTORS OF SCERT AND DTERT

This part is intended to elicit more details regarding the organizational as well as functional aspects of SCERT Kerala and DTERT Tamil Nadu. The

Investigator conducted an interview with the Directors of both institutions. The interview schedule is divided into four major heads viz; academic activities – general, academic activities related to textbooks, academic administration and general administration. Details of each section is given in the following tables.

**Table - 4. 77 Opinion of the Directors about Academic Activities in General**

No.	Questions	SCERT	DTERT
1	Frequency of curriculum revision	Every five year	Based on NCF
2	Periodicity of training in classroom transaction	Once in three months	As and when required
3	Periodicity of training content area	Once in three months	As and when required
4	Academic freedom in performing activities	Yes	Yes
5	PAC for the finalisation of the programmes	Yes	No
6	Arrangement of national/ international programmes within the institution	Yes	No
7	Provide opportunity for attending international programmes	Yes	No

The above table shows that while in Kerala there is curriculum revision in every five year, in Tamil Nadu it is done on the basis of National Curriculum Frame Work (NCF). The Directors of both institutions stated that they have full academic freedom in the matter of smooth functioning of the institutions. The programmes of the SCERT are organized with the able assistance of an academic body namely Programme Advisory Committee (PAC). But in DTERT there is no such body. Though SCERT organizes some national and international programmes for improving the academic efficiency of faculty members, DTERT does not arrange such programmes. SCERT and DTERT provide opportunity for attending national level programmes outside the institution, but SCERT alone provide such opportunity at international level too.

**Table - 4. 78 Opinion of the Directors about Academic Matters-Text Books**

No	Questions	SCERT	DTERT
1	Authority to prepare textbooks for the state	SCERT	Now DTERT, earlier outside agency
2	Class up to which textbook development is made	From pre-primary to higher secondary	Now up to class VII. In near future up to class X
3	Category of textbook writers	School teachers, DIET Faculty members, College, University teachers and national experts	School teachers and DIET Faculty members
4	Mode of appointment of textbook writers	On the basis of aptitude test and experience	Based on experience and qualification
5	Presence of textbook development committee	Yes	Yes, but DDE constitutes the committee
6	Category of academicians in committee	Advisor- from national level Chairman-from college level Subject experts -from college level Co-ordinator -from SCERT Writers-field teachers	Educational officers, DIET faculty members and school teachers
7	Preparation of any other teacher- learning materials other than textbooks	Yes. Hand books, additional learning material including digital materials and evaluation materials	Yes. Prepares evaluation materials
8	Approval for the textbooks and other learning materials	Curriculum Committee headed by Educational Minister	Director DTERT
9	Printing and publishing agency of text book	Kerala Book and Publication Society	Tamil Nadu Textbook Society

Table 4.78 reveals that in Kerala, it is the duty of SCERT to prepare the curriculum and textbooks. In Tamil Nadu, though the earlier practice was to assign the duty of preparing textbook to an outside agency, now this task is assigned to DTERT. Though DTERT depends on school teachers and DIET faculty members, the SCERT has the support of variety of academicians starting from school teachers to national experts in this regard. In Kerala there is an aptitude test for selecting textbook writers and there exists a textbook developing committee comprising of variety of national and local experts. In addition to that, there is a high level committee headed by the Honourable Minister for Education as Chairman called Curriculum Committee that provides for the final approval of textbook and related materials. In Tamil Nadu, DTERT Director can approve textbooks and other related materials. Though DTERT prepares evaluation materials alone, Kerala SCERT prepares additional materials including handbook for teachers and digital materials for students.

In both the states there are public undertakings for printing and publication of textbooks. So it seems that there is no substantial difference in the process of textbook preparation by SCERT and DTERT. However the duty of the DTERT is confined to the preparation of textbooks and evaluation materials only. But SCERT prepares variety of learning materials. Though in Kerala there is an academic body of experts for preparation of textbooks including, experts from the national level. But in DTERT this delicate task is assigned to an internal expert body.

**Table - 4.79 Opinion of the Directors about Academic Administration**

No	Questions	SCERT	DTERT
1	Number of wings/departments	Six	Six. But no department-wise function is going on
2	Working of faculty members in department wise structure	Yes. Still doing the work of other departments	No
3	Opinion about the sufficiency of present staff pattern to satisfy the functions of your institution	No	No
4	Nature of control over DIET	Nil	Both academic and administrative
5	Nature of control over SSA	Nil	Nil

According to the Table 4.79, in SCERT Kerala, there exists six specific departments and the faculty members are working on the basis of department. But due to the scarcity of sufficient faculty members they carry out the work of other departments too. Though in DTERT Tamil Nadu, there exists six specific departments, no such department-wise allotment of work is going on. SCERT has no control over DIET and SSA, but DTERT has academic as well as administrative control over DIET, but no such control over SSA.

**Table - 4.80 Opinion of the Directors about General Administration**

No	Questions	SCERT	DTERT
1	Satisfaction with the present legal status	Yes	Yes
2	Source of financial assistance	State Govt.	State Govt.
3	Governing authority	Governing Body headed by Educational Minister	State Govt.
4	Opinion regarding the general function	Excellent	Satisfactory
5	Opinion about the difficulty and its reasons	Yes. scarcity of faculty members	Yes. Scarcity of faculty members
6	Suggestions to improve functions	Appointment of more faculty periodic training and monitoring providing of field level interaction micro level research	Appointment of more faculty periodic training and evaluation micro level research preparation of more teaching aids like handbooks

Table 4.80 shows that both Directors enjoy the present status of Council and Directorate in Kerala and Tamil Nadu respectively. In both the states, government is providing financial assistance for the smooth running of the institutions. Though in Tamil Nadu, State Government is the governing authority of DTERT, in Kerala, the governing body of a charitable society chaired by the Education Minister is the governing authority of SCERT. Both Directors suggested the importance of the appointment of faculty members and the need of research based activities.



It may thus be concluded that SCERT is functioning in a better way owing to the following reasons.

- SCERT provides periodic training for teachers in content area of curriculum and classroom transaction.
- The programmes of the SCERT are organized with the able assistance of an academic body namely Programme Advisory Committee (PAC) and for approval of materials there is the Curriculum Committee.
- For taking policy decisions, SCERT Kerala has a governing body having adequate representation of academicians.
- For the development of textbooks, SCERT enjoys full freedom and for this purpose there is an effective machinery for ensuring the support of academicians at the local, state and national levels.
- SCERT organizes national and international seminars for improving the academic efficiency of faculty members.

#### 4.7 ANALYSIS OF THE INTERVIEW WITH THE STATE PROJECT DIRECTORS OF SSA KERALA AND TAMIL NADU

This part is intended to draw data about the main academic activities that are being carried out by SSA in the area of school education, their linkage with SCERT etc. The details of the interview are given in the table.

**Table - 4.81 Opinion of the State Project Directors of SSA Kerala and Tamil Nadu**

No	Questions	Kerala	Tamil Nadu
1	Academic activities undertaken under the scheme	Teacher training Preparation of additional learning material Research	Teacher training Preparation of additional learning material Research
2	Class up to which training is concentrating	Up to 8 <sup>th</sup> standard	Up to 8 <sup>th</sup> standard
3	Leadership level at teacher training	From SRG level	From module preparation
4	Area of teacher training	Content, Methodology Evaluation, Research and New trends in education.	Content methodology New trends in education.

5	Academic link with SCERT/ DTERT for implementing activities	Yes. SCERT prepares modules and provides assistance when and where necessary.	No. Prepares module and provides training directly
6	Other agency that gives academic support	DIET	DIET
7	Type of materials prepared for the educational system	Materials related to health and hygiene. Adolescent education material. New trends in education	Prepares materials related to new trends.
9	Level at which material production	Up to 8 <sup>th</sup> standard	Up to 8 <sup>th</sup> standard
10	Committee that gives final approval for the materials after its development	SSA	SSA
11	Activities undertaking under the Non-formal / Adult education sector	No activities	No activities

From the above table it appears that SSA in both Kerala and Tamil Nadu is concentrating in many activities like teacher training, preparation of additional teaching-learning materials and research. In both states training up to 8<sup>th</sup> standard is provided by SSA. In Kerala training starts from the SRG level covering content, methodology, evaluation, research and new trends in the field of education. But in Tamil Nadu though they provide the training from the level of module preparation, they are not concentrating on evaluation and research. In both the states SSA seeks the support of DIET and they do not prepare materials like curriculum, textbook evaluation materials etc. Both in Kerala and Tamil Nadu, SSA is the final authority to provide final approval to the materials prepared by them.

In both the states there are no activities related to Non-formal/ Adult education areas. So it can be interpreted that both in Kerala and

Tamil Nadu, SSA play a substantial role in providing teacher training up to 8<sup>th</sup> standard and the activities under this scheme are more or less same in both states.

#### 4.8 ANALYSIS OF INTERVIEW WITH THE PRINCIPALS OF DIETS

This part is aimed to elicit data regarding the main functions that are being carried out by DIETs, the academic collaboration of DIETs with SCERT etc. The details of the interview are given in the table.

**Table - 4.82 Opinion of the Principals of DIETs**

No	Questions	Kerala	Tamil Nadu
1	Activities undertaken	Pre-service education (TTC) In-service and pre-service training Research Material production Non-formal education activities Conducting seminars	Pre-service education, In-service and pre-service training Research
2	Class up to which concentrating	Up to high school level	Up to upper primary level
3	Level of control in Teacher Training	SRG, DRG, and Teacher training	SRG, DRG and Teacher training
4	Area of concentration	Content and methodology	Content and methodology
5	Academic linkage with the SCERT/DTERT for implementing academic activities	Discusses with concerned SCERT faculty members	Discusses with concerned SCERT faculty members
6	Role of preparation of material like curriculum, textbook, evaluation materials for the educational system	No direct role	No direct role
7	Authority who prepares such material for the state	SCERT	Now DTERT, before outside agency
8	Chance of mutual transfer between the faculty members of SCERT/DTERT and DIETS	No	Transferrable

No	Questions	Kerala	Tamil Nadu
9	Type of control SCERT hold over DIETS	No control	Academic and administrative
10	Presence of faculty concerned with Non-formal /Adult education	Yes	No
11	Major activities related to Non-Formal / adult education	Conducts training awareness programmes research programme etc	NA

From the Table 4.82 it appears that both in Kerala and Tamil Nadu, DIETs are taking leadership in pre-service education, in-service training and research. However DIETs in Kerala are performing the additional role of taking leadership in Non-formal education area too. Though in Tamil Nadu, the activities of DIETs are confined up to upper primary level, in Kerala it extends up to high school level. Both DIETs provide teacher-training from SRG level. In both the states training covers content and methodology and it is done after conducting discussions with concerned SCERT/DTERT faculty members. In both the states DIETs do not prepare any material like curriculum, textbooks, handbook and evaluation materials. In Kerala the duty to prepare such materials is assigned to SCERT. But in Tamil Nadu, DTERT prepares it for the state now, but before outside agency was also involved in these processes. Though in Tamil Nadu, there is mutual transfer of the faculty members of DTERT and DIETs, but in Kerala such practice does not exist. In Kerala, SCERT exerts no control over DIETs, but DTERT has both academic and administrative control over DIETs. In Kerala there is one faculty member in DIET concerned with Non-formal/Adult education area. But in Tamil Nadu there is no such faculty members. Conducting training, organizing awareness programmes and research programme are the major activities done by DIETs in Kerala in the area of Non-formal education. So it is inferred that though both in Tamil Nadu and in Kerala DIETs are actively involved in all academic activities, in Kerala they are involved in the area of Non-formal education also. It is also interpreted that both in Kerala and Tamil Nadu DIETs carry out the extension activities of SCERT and DTERT.

## Chapter-5

# SUMMARY, FINDINGS, CONCLUSION AND RECOMMENDATIONS

### 5.1 BRIEF RESUME OF THE STUDY

The research work entitled “Organization and Functions of SCERT Kerala and DTERT Tamil Nadu: A Comparative Study” was undertaken with a view to eliciting the organizational pattern and functions of SCERT Kerala and DTERT Tamil Nadu. In this chapter the Investigator concludes the study by pinpointing significant aspects such as major findings, tenability of hypotheses formulated, conclusion, recommendations and suggestions for further research. In order to have a comprehensive view, a brief summary of the work is attempted below.

The NCERT was established in the year 1961 as an apex national level organization to advise the Government of India, other national level organizations and State Governments in all matters of school education. The NCERT undertook the responsibility to develop and renew school curricula and prepare exemplary text books, suggesting changes in evaluation and assessment patterns. Immediately after the establishment of NCERT, the need was felt to establish its counterpart institutions in the state and as a consequence of the same, in every state, State Institute of Education (SIE) was established in the mid sixties for qualitative improvement of elementary education. Since then it had been functioning as an academic wing of the Department of General Education, coordinating different activities related to school education in the state.

Though in the initial stage, in Kerala and Tamil Nadu, the State Institute of Education was the mechanism entrusted with the duty to promote educational research and training, subsequently in both the states SIE was converted into SCERT, an autonomous body. But in the state of Tamil

Nadu, the autonomous body was reconverted into Directorate of Teacher Education Research and Training (DTERT).

The present study will help to identify and share the best practices of these two establishments and also to identify the short falls which were unnoticed till now. The study will pave way to develop concrete suggestions which will be helpful to all such institutions in the country.

#### 5.1.1 Methodology

The present study deals with the comparison of the organizational structure and functions of both SCERT Kerala and DTERT Tamil Nadu. Investigator selected Analytical cum Survey method for the conduction of the study. A survey was conducted among the faculty members of SCERT and DTERT to elicit data regarding the organization and functions of these two institutions. In addition, another survey was conducted among the selected school teachers to draw the opinion regarding the functions of these two institutions. For this purpose three sets of detailed questionnaires were prepared and administered among the academic staff of both SCERT and DTERT and school teachers of both states. The Non-formal education faculty of both SCERT and DTERT, Directors of SCERT and DTERT, SPD of SSA Kerala and Tamil Nadu and principals of selected DIETs in Kerala and Tamil Nadu were interviewed with an interview schedule. Relevant documents from SCERT and DTERT were also analysed for getting valid data.

#### 5.1.2 STATISTICAL TECHNIQUES USED

The data collected through the questionnaire was consolidated for statistical analysis. Percentage Analysis, ‘Z’ test and ‘Chi Square’ test were statistical techniques used for the present study.

### 5.2 MAJOR FINDINGS OF THE STUDY

The study was designed to identify the organizational structure and functions of SCERT Kerala and DTERT Tamil Nadu. The findings that are drawn from the study are presented under the following heads.

1. Findings related to the organizational structure of SCERT and DTERT.
2. Findings related to the functions of SCERT and DTERT.
3. Findings related to the functions based on the opinion of beneficiaries of SCERT and DTERT.
4. Findings related to the role and functions of the Non-formal education wing of SCERT Kerala and DTERT Tamil Nadu.

5. Findings related to the fulfilment of the objectives of SCERT and DTERT.

### 5.2.1 Findings related to Organizational Structure of SCERT and DTERT

#### Based on the Analysis of Documents of SCERT and DTERT

- Both in Kerala and Tamil Nadu, SIE was established in the year 1964 and 1965 respectively. Subsequently in 1970 and 1994, the SIEs were converted into SCERT in Tamil Nadu and Kerala respectively. But in Tamil Nadu, SCERT was reconverted into DTERT in the year 1990.
- In Kerala, SCERT is an autonomous body registered as a charitable society under the control of State Government. But DTERT is under the direct control of State Government. The Honourable Minister for Education is the Chairman of the Governing Body of SCERT but DTERT is governed by the State Government.

#### Based on the Interview with the Directors of SCERT and DTERT

- Both the Directors enjoy the present status of their institution namely Council and Directorate in Kerala and Tamil Nadu respectively.
- In both the states, government provides financial assistance for the smooth running of the institutions.
- Though in Tamil Nadu, State Government is the governing authority of DTERT, in Kerala, the Governing Body of a charitable society chaired by the Honourable Minister for Education is the governing authority of SCERT.
- In SCERT Kerala, there exists six specific departments and the faculty members are working on the basis of department. Though in DTERT, there exists six specific departments, no such department-wise allotment of work is going on.

#### Based on the Responses of Senior Faculty of SCERT and DTERT

- Though the legal status of the two organizations are entirely different, the nomenclature of the head of the two institutions is identical.
- The position of DTERT is better in terms of high level administrative officers and SCERT is better in terms of faculty members.

- Both SCERT and DTERT are functioning with the support of various departments which have definite department structure. The total number of departments are also the same in SCERT and DTERT. Both the respondents are satisfied with the existing structural arrangement of the departments in spite of the fact that the department-wise organization of these two institutions are different.
- Though in SCERT and DTERT the number of departments and the functions carried out by these institutions are more or less the same, DTERT has no specific department for handling Non-formal education, Art, Physical, Health and Vocational education.
- SCERT is rich in terms of the number of faculty members but the designations are different in SCERT and DTERT. In DTERT, all the faculty members are permanent but SCERT has permanent as well as deputed faculty members. DTERT does not prefer temporary faculty but in SCERT the Consultant is a temporary faculty.
- The entire ministerial staff of DTERT are permanent while in SCERT there are only deputed staff. However SCERT is rich in terms of total number of ministerial staff. Both the institutions have enough support of Senior Administrative Officers.
- The members of the staff of DTERT are governed by rules of the state government and their salary is based on the scale of pay of state employees. But in SCERT there exists no special rules regarding the service conditions of the faculty members.
- Both in SCERT and DTERT, the physical arrangements of departments and the facilities attached to their seating arrangements are identical and appear to be fine.
- Both SCERT and DTERT possess library with a qualified librarian. SCERT library is rich in terms of books, journals and periodicals. Both the institutions have facility for computer printing and xerox copying. Both the faculty members of SCERT and DTERT are satisfied with the existing organizational structure.

#### Based on the Responses of the Faculty of SCERT and DTERT

- The entire staff in SCERT and DTERT (100%) are satisfied with the present legal status of their institution.
- In DTERT, 100% of the faculty members are permanent, but in SCERT, its percentage is only 55.5. Z test shows significant difference at 0.01

level among the permanent teachers of SCERT and DTERT. DTERT is rich in having permanent faculty members.

- Among the faculty members of DTERT, only above half of them (56.2%) are satisfied with the department-wise function, whereas its percentage in Kerala is 100. The Z test for proportion shows that satisfaction is significantly high among beneficiaries of SCERT as compared to beneficiaries of DTERT.
- In DTERT majority (62.5%) of the faculty members opined that staff pattern is sufficient, but its percentage in SCERT is 0. Z test shows a significant difference at 0.01 level with respect to the satisfaction of sufficiency of staff pattern among SCERT and DTERT. Though SCERT is rich in terms of faculty members, when compared to its function, the number of faculty members is insufficient.
- Majority (87.5%) of faculty members in DTERT and cent percentage in SCERT show a positive approach towards the physical facilities they enjoy in their institutions. There is no significant difference in this regard. The physical facilities provided by both SCERT and DTERT are fine in both the institutions.
- Though the entire faculty members in DTERT are satisfied with salary and service conditions, only 64% in SCERT is satisfied in these matters. Z test shows a significant difference at 0.01 level in the matter of satisfaction regarding service conditions, salary allowances and perquisites. Though the faculty members of DTERT are satisfied, the faculty members of SCERT are not satisfied in this regard. Majority of the faculty members in SCERT and DTERT (82% and 75% respectively) are satisfied with the support given by the authorities.
- The open responses of the faculty members of SCERT revealed that absence of approved rules and regulations is one of the major limitations of the institution. Lack of department-wise functioning is one of the limitations pointed out by DTERT faculty members.

### 5.2.2 Findings related to the Functions of SCERT and DTERT

#### Based on the Analysis of Documents of SCERT and DTERT

- Both SCERT and DTERT play a very crucial role in school education and they are the most important institutional mechanisms for assisting the government in formulating and implementing policies related to school education.

- The major functions performed by both these institutions are formulating the curriculum and syllabus, preparation of textbooks, pre-service and in-service training for teachers and research in education. In the aims and objectives of SCERT, it is expressively stated that one of the objectives of SCERT is “to advise the state government on policies and programmes for enhancing quality in school education and to act as a clearing house for ideas and information in matters related to school education”.
- Though both SCERT and DTERT perform well in the area of school education, it is pertinent to note that DTERT concentrates only up to the upper primary level with regard to teacher training. But SCERT extends its activities from Pre-primary to Higher secondary level.
- Though both SCERT and DTERT have linkage with other organizations/ institutions at the state, national and international level, at state level SCERT has been interacting with academic institutions more than DTERT. But at the district level, DTERT shows more coordination than SCERT.

#### Based on the Interview with the Directors of SCERT and DTERT

- The Directors of both the institutions have full academic freedom and do not find any difficulty in the matter of the smooth functioning of the institutions.
- The programmes of the SCERT are organized with ample assistance of the academic body, namely Programme Advisory Committee (PAC) and for approval of materials there is the Curriculum Committee under the chairmanship of the Honourable Minister for Education. DTERT does not have either PAC or Curriculum Committee.
- For the development of textbooks, SCERT enjoys full freedom and for this purpose there is an effective machinery for ensuring the support of academicians at the local, state and national levels. But in DTERT this delicate task is assigned to an internal body.
- SCERT organizes national and international programmes for improving the academic efficiency of faculty members. But DTERT does not arrange such programmes. Though both SCERT and DTERT provide opportunity for attending national level programmes, SCERT alone provides such opportunity at the international level too.

### **Based on the Interview with the State Project Directors of SSA Kerala and Tamil Nadu**

- In both Kerala and Tamil Nadu, SSA provides training up to upper primary level. In Kerala, training starts from the SRG level covering content, methodology, evaluation, research and new trends in the field of education. But in Tamil Nadu, though they engage in training from the level of module preparation, they are not concentrating on evaluation and research.
- In both the states, SSA seeks the support of the concerned DIET and SCERT/DTERT faculty members and they do not prepare materials like curriculum, textbooks, evaluation materials etc. SCERT and DTERT prepares the same for the state.
- Both in Kerala and Tamil Nadu, SSA is the competent authority to provide final approval to the materials prepared by them.
- In both the states, SSA does not engage in activities related to Non-formal/Adult education areas.
- Both SCERT and DTERT do not exert any academic or administrative control over SSA.

### **Based on the Interview with the Principals of DIETs**

- Both in Kerala and Tamil Nadu, DIETs take leadership in pre-service education, in-service and pre-service training and research. DIETs in Kerala perform the additional role of taking leadership in the Non-formal education area.
- While in Tamil Nadu, the activities of DIETs are confined to the upper primary level, in Kerala it is extended from the pre-primary to secondary level. In both the states, DIETs carry out the extended activities of SCERT/DTERT.
- In both the states, training covers content and methodology and it is done only after discussions with concerned SCERT/DTERT faculty members.
- In both the states, DIETs do not prepare any materials like curriculum, textbooks, handbooks, evaluation materials etc. It is the responsibility of SCERT/DTERT to prepare such materials. In Kerala the duty to prepare such materials is assigned to SCERT alone. But in Tamil Nadu, very recently DTERT prepares such materials for the state.
- Though in Tamil Nadu, there is mutual transfer of the faculty members of DTERT and DIETs, in Kerala such a practice does not exist.

- In Kerala, SCERT does not exercise any control over DIETs, but in Tamil Nadu, DTERT has both academic and administrative control over DIETs.
- In Kerala there is one faculty member in DIET working in the Non-formal/Adult education area. But in Tamil Nadu, there is no such faculty member.
- Conducting training, organizing awareness programmes and research programmes are the major activities of the DIETs in Kerala, in the area of Non-formal/Adult education. Both in Kerala and Tamil Nadu, DIETs are actively involved in all areas of teacher training and in Kerala they are involved in Non-formal education area also.

### **Based on the Responses of Senior Faculty of SCERT and DTERT**

- Both SCERT and DTERT play a substantial role in assisting government in policy formulation and implementation, the framing of curriculum and syllabus, development of textbooks, evaluation materials and additional reading materials. Both these institutions play a creative role in the preparation of TTC curriculum. SCERT also involves in the development of teachers' handbook from pre-primary to higher secondary level.
- In the case of the preparation of Special education materials and Non-formal education materials, SCERT plays a substantial role while DTERT plays no role at all.
- At the pre-primary level, though SCERT engages in all academic matters except textbook preparation, DTERT is not engaged in such activities. The role of DTERT is limited in this regard, as it provides training only.
- At the primary level, both SCERT and DTERT play a very important role in the matters of formulation of curriculum and syllabus, preparation of textbook, development of evaluation strategies, preparation of training module and providing of training. Regarding the development of handbook and additional reading materials, SCERT plays an active role but DTERT has no role at all.
- At the secondary level, formulation of curriculum and syllabus, preparation of textbooks are the areas of concern of both SCERT and DTERT. However, SCERT alone is engaged in the preparation of handbook, additional reading materials, development of evaluation strategies, training module and providing training.

- At the higher secondary level, SCERT plays a very important role in the formulation of curriculum and syllabus, preparation of textbooks, handbooks, additional reading materials, development of evaluation strategies, training module and providing training. But DTERT has no role in this area.
- SCERT and DTERT have a creative role in all academic areas of Teacher Training Course (TTC). But it is noted that both the institutions do not develop any textbooks for TTC. Both SCERT and DTERT do not play any role at the B.Ed level. Though pre-service education is the main area of concern of both SCERT and DTERT, their role is confined to the TTC level.
- DTERT does not play any role in the areas of Vocational education, Technical education and Open system of learning. But SCERT plays an active role in almost all academic aspects of these three areas of education including development of textbooks, handbooks and providing training.
- DTERT does not play any role in Art, Physical and Health education areas, but SCERT plays a significant role in almost all academic aspects of these areas of education except in the preparation of textbooks.
- DTERT does not play any role in the area of Special education and Non-formal education. But the role of SCERT is very significant in these two areas starting from curriculum preparation to teacher training.
- In the area of Information Technology too, SCERT plays an active role, especially in the development of textbooks and handbooks. DTERT is engaging only in the training programme in IT education area.
- In the area of Population/Adolescent education, both SCERT and DTERT play a substantial role. They prepare additional learning materials and providing training in these area.
- Regarding training from pre-primary to higher secondary education, the role of SCERT is confined to module preparation and SRG training. But only at the primary level, DTERT plays a better role, starting from module preparation to field level teacher training. At the pre-primary level, role of DTERT is confined to teacher training and DTERT is not involved in the area of secondary and higher secondary teacher training process at any level.
- Regarding training at the TTC level, DTERT plays a significant role starting from module preparation to field level teacher training. SCERT engages only in module preparation and SRG training.

- Regarding training in Non-formal education and Special education too, SCERT has a major role including module preparation, SRG training and field level teacher training, but DTERT has no role at all.
- Regarding training in the area of Population education, both SCERT and DTERT play a significant role.
- In the state of Tamil Nadu, DTERT, DIET and SSA are the agencies for providing field level teacher training up to upper primary level. But in Kerala, SCERT is not involved in the process of field level teacher training and it is assigned to SSA ( Primary) and DIET (secondary). In Tamil Nadu, DTERT is not involved in the teacher training process of secondary education and it is done by the University of Teacher Education. Both in Kerala and Tamil Nadu, field level teacher training at Higher secondary level is done by DHSE.
- Both DTERT and SCERT are involved in IT enabled training for teachers but DTERT alone is involved in providing training for students in this regard. IT @ school is the collaborating agency for both the institutions in this regard.
- In Tamil Nadu, DTERT is the agency for providing training for Educational Administrators at different levels. But in Kerala this function is not performed by SCERT, but by SIEMAT.
- Both SCERT and DTERT provide opportunity for attending Faculty Improvement Programme outside the institution, But SCERT alone arranges state level, national and international programmes for faculty improvement within the institution.
- In SCERT, research programmes are carried out on Curriculum, Textbook, Evaluation, Teacher education, Non-formal education and Population/ Adolescent education areas. In DTERT research activities are going on in all these areas except Evaluation and Non-formal education.
- Both SCERT and DTERT carry out projects of the State Government, NCERT and NUEPA. SCERT carries out the projects of ICSSR also. None of these institutions carries out the project of the Central Government. Research findings of both these institutions have been used for policy formulation.
- Both SCERT and DTERT have academic control over primary education. SCERT only has academic control over Pre- primary, Secondary and Higher secondary education, Technical education, Vocational education, Open school and Literacy mission. Nevertheless

only DTERT exercises academic as well as administrative control over DIETs and TTIs. SCERT does not have administrative control over any of such institutions in the state. Both SCERT and DTERT do not exercise any control at B.Ed.level. As an apex body in school education, SCERT exercises only academic control over other institutions.

- Both SCERT and DTERT have collaboration with Directorates of primary education, secondary education, SSA, DIET, SIEMAT and institution for Information Technology. SCERT alone has collaboration with the Directorate of Higher secondary, Vocational higher secondary, Technical education, institution for Open Learning, institution for Literacy Mission and institution of Educational Technology.
- Both SCERT and DTERT have a good library with a qualified librarian. The library of SCERT is an information centre for the entire teaching community of the state, but the entry to the library of DTERT is confined to staff members only.
- SCERT and DTERT publish research journals and both the journals contain theoretical papers and research articles. In addition to that, SCERT publishes a quarterly newsletter too.

#### **Based on the Responses of the Faculty of SCERT and DTERT**

- All the faculty members in SCERT and 87.5% in DTERT are of the view that they have adequate facilities to perform functions.
- Regarding the opportunity to utilize latest technologies, cent percentage positive response is seen in both SCERT and DTERT. There is no significant difference in these regard. Both SCERT and DTERT provide adequate facilities and opportunity to utilize latest technologies to their faculty members.
- All the faculty members of SCERT and 87.5% of faculty members in DTERT are satisfied with the present functioning of the institutions.
- Regarding the functions performed by SCERT and DTERT, the entire staff (100%) in both the institutions opined that none of the functions presently performed by them be transferred to other institutions. Though the entire faculty members in SCERT is of the opinion that none of the functions performed by any other institution be transferred to SCERT, majority (75%) of the faculty members of DTERT entertain the view that certain functions presently performed by other agencies may be transferred to DTERT. Z test shows that there is significant difference at the level of 0.01 between the faculty members of SCERT and DTERT

regarding the need to transfer functions from other institutions to SCERT/DTERT. Though the SCERT faculty are fully satisfied with the functions entrusted upon it, the faculty of DTERT demand the necessity of more functions to their institution.

- The entire faculty members of SCERT and DTERT remarked that their institutions maintain time schedule in the matters of making available materials to teachers and providing training.
- The entire faculty members of SCERT opined that they get the opportunity to carry out research projects and publish the reports of research projects. Though in DTERT, majority (81%) of the faculty members get the opportunity to carry out research projects, only 62% of them get the opportunity to publish the reports. But its percentage in SCERT is hundred. Z test shows a significant difference at 0.05 and 0.01 level in the chance to carry out research and publishing the reports among the faculty members of SCERT and DTERT respectively. Majority of faculty members of SCERT get the chance to undertake research work and publish the report than that of DTERT.
- Majority (82%) of the faculty members of SCERT get the opportunity to publish the report of the research projects in their institutional journal. But only 69% get such an opportunity in DTERT.
- The entire faculty members of both institutions get the opportunity for Faculty Improvement Programme outside the institutions. Though the entire faculty members of SCERT get opportunity for such programmes within the institution, only 12.5% of DTERT faculty members enjoy these facilities. Z test shows a significant difference of 0.01 level between the staff of SCERT and DTERT in getting opportunity for faculty improvement programme within the institution. For the professional growth of faculty members, SCERT Kerala is performing in a better way than DTERT.
- In the matter of using institutional library, both SCERT and DTERT faculty members are in a better position (100%).
- Though the majority (75%) of faculty members in DTERT has job satisfaction and satisfaction about working atmosphere, only 64% in SCERT has job satisfaction and only 45% is satisfied with working atmosphere.
- Open responses of the faculty members revealed that lack of control over teacher training at Secondary level and Higher secondary level is one of the major limitations of DTERT.



- Open responses of the faculty members of both institutions show that they need Faculty Improvement Programmes within and outside the state including IT based training and exposure visits to other SCERTs in the country.
- The faculty members of both SCERT and DTERT enjoy the responsibility of development of textbooks and related materials for the respective states.
- For the betterment of the institutions, both SCERT and DTERT faculty members suggested that linkage with other SCERTs in the country and that with other educational institutions in the state should be strengthened.
- An idea of “educational complex under an umbrella” is another suggestion put forth by the faculty members of SCERT. Faculty members of DTERT suggested the need of more professionalism in the area of textbook preparation.

### 5.2.3 Findings Related to the Functions Based on the Responses of the Beneficiaries of SCERT and DTERT

- In Kerala, 24% of teachers get the opportunity to participate in the curriculum development process of the state whereas its percentage is very low (11% ) in Tamil Nadu. The Chi Square statistics (11.71) shows that this difference is statistically significant at 0.01 level. The opportunity to participate in the curriculum development process is high among the beneficiaries of SCERT than DTERT.
- Regarding the opportunity to know curriculum before implementation, nearly half (49.5%) of the teachers from Kerala and only 8.5% from Tamil Nadu get such an opportunity. The Chi Square statistics (81.64) shows that there is significant difference at the level of 0.01. Teachers of Kerala get more chance to know about the curriculum changes before it is implemented.
- In Kerala, above half (54.5 %) of the teachers get the chance to know about the curriculum through training before its implementation. But in Tamil Nadu its percentage is 21.5. The Chi Square statistics shows a significant difference at 0.01 level between the teachers of Kerala and Tamil Nadu. Teachers of Kerala get more opportunity to know about the curriculum before implementation, through the process of teacher training.
- In Kerala, 21% of the beneficiaries of SCERT get the opportunity to participate in the textbook development process of the state whereas its

- percentage is very low (3%) in Tamil Nadu. The Chi Square statistics (30.68) shows that there is significant difference at the level of 0.01. SCERT provides more opportunity to teachers for participating in the textbook development process of the state than DTERT.
- Regarding the chance to know about revised textbooks, half of the teachers (50%) from Kerala and a very small percentage (5%) from Tamil Nadu opined that they get the knowledge before its implementation. The Chi Square statistics (101.57) reveals that teachers of Kerala get more chance to know about the revised textbook before its implementation.
- In Kerala above half (59 % ) of teachers get chance to know about the new textbook through training process of SCERT. But in Tamil Nadu only 20% get it through training before implementation. The Chi Square statistics (63.65) shows a significant difference at 0.01 level between the teachers of Kerala and Tamil Nadu in the matter of getting chance to know the textbook before implementation. In Kerala, trainings are arranged to teachers well in advance before the implementation of curriculum and textbooks.
- Regarding the role played by the agencies engaged in the task of conducting in-service training in different areas, it is seen that, DIET arranges 36.5% in Kerala and 84% in Tamil Nadu, SSA arranges 92 % in Kerala and 88% in Tamil Nadu. DIET and SSA shows a significant role both in Kerala and Tamil Nadu. SSA plays a crucial role in this matter. Regarding the level of role played by the agencies engaged in the task of arranging workshop/training, significant difference (0.01) is visible in the case of SCERT and DTERT and the role of DTERT is also seen to be significant in this regard. But SCERT has no direct involvement in the field level teacher training. In Tamil Nadu, along with DIET and SSA, DTERT too has a major role in the field level training process.
- Majority (63.5%) of teachers in Kerala and a low percentage (7.5%) of teachers in Tamil Nadu receive in-service training in the area of approach. Regarding the training on approach, Chi Square statistics (136.96) reveals that position of teachers in Kerala is better. But regarding the aspects of pedagogy, position of Tamil Nadu teachers is better (88.5% in Tamil Nadu and 81.5% in Kerala). In the matter of training in content, Chi Square statistics (9.65) reveals that there is significant difference at the level of 0.01 between teachers of Kerala

and Tamil Nadu. Tamil Nadu teachers are in a better position in this regard (70.5% in Tamil Nadu and 55.5% in Kerala). But in the matter of evaluation, position of Kerala teachers is very high (64.5% in Kerala and 12.5% in Tamil Nadu). SCERT is concentrating on approach and evaluation while DTERT is concentrating on pedagogy and content.

- Regarding the benefit received from in-service training, Chi Square value (36.44) shows that there is significant difference at the level of 0.01. The teachers of Kerala entertain better appreciation in this matter (45.5% in Kerala and 18.5% in Tamil Nadu). Regarding the level of satisfaction in in-service training programme, Chi Square statistics reveals that there is significant difference at the level of 0.01 between the teachers of Kerala and Tamil Nadu. It shows that teachers of Tamil Nadu are better satisfied (75% in Tamil Nadu and 43.5% in Kerala). However regarding the impact on competency based on training, teachers of Kerala maintain high opinion (99.5% in Kerala and 92.5% in Tamil Nadu) since Chi Square statistics (12.94) reveals that there is significant difference at 0.01 level. Though Kerala teachers are acquiring more competency through in-service training, the position of Tamil Nadu teachers is also better in this regard (92.5%).
- Regarding the frequency of training in classroom transaction, 65% of teachers in Kerala and 64.5% from Tamil Nadu stated that they get training in classroom transaction when the curriculum and textbooks change. Chi Square statistics (0.01) shows no significant difference in this regard. Both the teachers in Kerala and Tamil Nadu get training when the curriculum and text books change.
- Regarding the aspects of classroom transaction emphasized in training, vast majority of teachers in Kerala and Tamil Nadu (84.5% and 73.5% respectively) stated that both theoretical and practical aspects are emphasized in the training on classroom transaction.
- Though great majority of teachers (77.5%) in Kerala get the opportunity to attend demonstration in classroom transaction, only 26% from Tamil Nadu get such an opportunity. Chi Square statistics (106.22) shows significant difference at the level of 0.01 in this regard. In Kerala, demonstration of classroom transaction is a major component of teacher training. Regarding the level of internalizing classroom transaction process, teachers of Kerala are in a better position (62.5% in Kerala and 11.5% in Tamil Nadu). In Kerala, during the training period, demonstration class for classroom transaction is also arranged for teachers for better internalization.

- Majority of teachers both in Kerala and Tamil Nadu (83% and 87% respectively) are able to update their knowledge through training. The Chi Square statistics (1.25) shows that there is no significant difference in this aspect. 41.5% from Kerala and 13.5% from Tamil Nadu stated that there is periodic training for content enrichment, 42.5% teachers in Kerala and 72% from Tamil Nadu stated that they are getting training when the curriculum and textbooks change. Chi Square statistics (36.99 and 35.56) shows that there is significant difference at the level of 0.01 in this regard. Though in both the states there are trainings when curriculum and textbooks change, in Kerala, the practice is periodic teacher training in content enrichment.
- 31% of teachers from Kerala and 7.5% from Tamil Nadu get the opportunity to involve in the evaluation processes of the state. Chi Square statistics (35.53) shows that there is significant difference at 0.01 level between the teachers of Kerala and Tamil Nadu in this regard. Teachers of Kerala get more chance to participate in the evaluation process of the state. Majority of teachers from Kerala and Tamil Nadu (88.5% and 67.5% respectively) get the evaluation strategy through training process.
- A good majority of teachers from Kerala and Tamil Nadu (94.5% and 95% respectively) stated that they become competent enough in evaluating the child through training. The Chi Square statistics (0.05) shows that there is no significant difference between the teachers from Kerala and Tamil Nadu regarding the competency acquired through training. Though Kerala teachers get more chance in participating in the evaluation process of the state, in both the states the training processes related to evaluation is fine.
- Regarding the additional academic preparations to be required to further enhancement of academic performance, more than 90% teachers from both Kerala and Tamil Nadu entertain the view that textbook, evaluation materials and training are essential to enhance professional performance and the Chi Square statistics shows no significant difference in this regard.
- Regarding the necessity of handbooks, though Chi Square statistics (6.4) shows significant difference at 0.05 level, there is a strong demand on the part of teachers of Kerala and Tamil Nadu for the need of handbooks (99% in Kerala and 94.5% in Tamil Nadu). Teachers of both the states consider handbook as one of the best tools for effective classroom transaction.

- Regarding the programmes which ensure better performance of SCERT and DTERT, majority of teachers from Kerala and Tamil Nadu (88.5% and 96.5% respectively) identified that organizing curricular activities hold a major role both in SCERT and DTERT.
- Regarding special courses for developing teaching skills, a great majority (above 90%) of teachers in both the institutions demand for such course. There is no significant difference between teachers of SCERT and DTERT in this regard.
- Regarding the institution that provides courses for developing teaching skills, above half (50%) of the teachers of Kerala and majority (80%) of teachers of Tamil Nadu prefer SCERT and DTERT as the best institutions. Though in Kerala, teachers treated SSA as a suitable institution for training along with SCERT, Tamil Nadu teachers consider DTERT as the only suitable institution for developing teaching skills.
- 57.5% teachers from Kerala and 65.5% from Tamil Nadu stated that, there are special schools for catering the children with special needs. Regarding training to teach the children with special needs, Kerala is in a high position (62%). But its percentage in Tamil Nadu is only 6.5. In Kerala, training programmes include the measures to be taken to cater the needs of the students with special needs. Kerala teachers get more chance to attend such training programmes and it is considered to be more effective.
- Nearly half of the teachers (45%) from Kerala and only 7.5% from Tamil Nadu stated that they get opportunity to work in the Non-Formal/Adult education programme of the state. Regarding the training on Non-formal/Adult education areas too, about 50% of teachers of Kerala and a low percentage (10%) from Tamil Nadu stated that they get training on Non-formal/Adult education areas. Among the teachers who receive training on Non-formal/Adult education areas, 97% from Kerala 60% from Tamil Nadu opined that the training is beneficial to them. SCERT performs in a better way than DTERT in providing training in the area of Non-formal/Adult education.
- Only a small number of teachers from Kerala and Tamil Nadu (16% and 8% respectively) acquired the ability to use the Educational Technology in the classroom through formal training of SCERT and DTERT. Majority of teachers (83%) from Kerala and above half (55%) of the teachers from Tamil Nadu opined that they get training in Information Technology through the project of IT@ School. Though the Chi Square

- statistics (36.65) shows that there is significant difference between the percentage of teachers who get training through IT@ school in Kerala and Tamil Nadu, IT@ school is the leading institution for providing training in Educational Technology in both states.
- Both in Kerala and Tamil Nadu, only a small percentage of teachers (17% and 7% respectively) get the opportunity to participate in educational research programmes carried out by the state. Though the Chi Square Statistics (9.4) shows significant difference between teachers of Kerala and Tamil Nadu in this regard, vast majority of teachers in both the states do not get chance to participate in the educational research programmes carried out by the state.
- 36% of the teachers from Kerala and 25% from Tamil Nadu do not get the opportunity to know the findings and suggestions of the educational research carried out by the state. Though the Chi Square statistics (5.71) shows significant difference at the level of 0.05, majority of teachers in both the states do not get any opportunity in this regard.
- Majority (70%) of the teachers from Kerala 22% from Tamil Nadu opined that changes in textbook and curriculum may be brought in according to the findings and suggestions of educational research works carried out by the state.
- Above 40% of teachers from Kerala get the chance to refer the research journal published by SCERT but in Tamil Nadu, only 6% of teachers from get such an opportunity.
- The Chi Square statistics shows that there is significant difference at the level of 0.05 in the matters of opportunity to do action research and opportunity to publish the result of research studies in the journal of SCERT and DTERT. Interestingly teachers of Kerala are in a better position in the matter of getting chance to do action research (21.5% in Kerala and 13% in Tamil Nadu) and teachers of Tamil Nadu are in a better position in getting chance to publish the result of their research work (50% in Tamil Nadu and 20.9% in Kerala).
- Regarding the opportunity to refer the materials like curriculum, textbooks, handbooks, evaluation materials and special education materials, teachers of Kerala are far ahead as compared to the teachers of Tamil Nadu. Teachers of Kerala get more opportunity in this regard.
- Regarding the timely availability of materials like curriculum, textbooks, handbooks, and materials related to evaluation and special education, Chi Square statistics shows a high significant difference. This means

that teachers of Kerala get these materials in time when compared to the teachers of Tamil Nadu. Kerala is very particular in making available these materials to teachers in time.

- Though Chi Square statistics (8.4) shows that there is significant difference at 0.01 level between the teachers of Kerala and Tamil Nadu in getting chance to improve the co-curricular and extra-curricular activities of the child through their curriculum, a vast majority of teachers in both states (92.5% in Kerala and 83% in Tamil Nadu) gave an affirmative answer in this regard. In both the states, teachers get chance to improve the co-curricular and extra-curricular activities for the children through their curriculum.
- Majority of the teachers in Tamil Nadu (82%) and 40% of teachers in Kerala get chance to evaluate the co-curricular and extra-curricular activities of the child. Chi Square statistics (74.15) shows that there is significant difference at 0.01 between the teachers of Kerala and Tamil Nadu in this regard. DTERT is giving due importance to co-curricular and extra-curricular activities when compared to SCERT.
- Majority of the teachers from Kerala and Tamil Nadu (78.8% and 90.9% respectively) get training to evaluate the co-curricular and extra-curricular activities of the child. Chi Square statistics (6.91) shows that there is significant difference at the level of 0.01 between the teachers of Kerala and Tamil Nadu in this regard. Though the position of DTERT may be rated as excellent in this regard, the position of SCERT is also good.
- Regarding the opportunity to provide value orientation through curriculum, there is no significant difference between the teachers of both Kerala and Tamil Nadu (87.5% in Kerala and 83.5% in Tamil Nadu). It is found that though in Kerala, handbook and training are major sources for providing value orientation (68% and 86% respectively), in Tamil Nadu training is the major source in this regard (68%).
- Above 41% teachers from Kerala and only a small percentage (6%) from Tamil Nadu have the membership in SCERT and DTERT Library. Chi Square statistics (51.63) shows that there is significant difference at 0.01 level regarding the periodicity of utilizing library of SCERT and DTERT. The Kerala teachers make better use of the SCERT library (47.3% in Kerala and 8.3% in Tamil Nadu). The DTERT library is not open to the teaching community of the state.

- Involvement in curricular activities, textbook preparation, handbook preparation, evaluation material preparation, research activities and acting as resource persons, Chi Square statistics (18.5, 21.78, 19.81, 19.57, 24.82, 22.57) shows that there is significant difference at the level of 0.01. SCERT ensures better participation of teachers in carrying out such activities than DTERT.

#### **5.2.4 Findings Related to the Role and Functions of the Non-formal Education wing of SCERT and DTERT**

##### **Based on the Interview with the Faculty of SCERT and DTERT**

- In DTERT, there is no particular department and faculty members in the area of Non-formal education and hence there are no activities related to this area. The Tamil Nadu Literacy Mission Authority conducts the activities for the learners of Non-formal education. But in Kerala, while there is the Kerala State Literacy Mission Authority (KSLMA), SCERT too has a major role in this area.
- Though the Non-formal education wing of SCERT conducts many activities for students and teachers of the Non-formal education area, the major programmes related to that department are the preparation of textbooks, handbooks and evaluation materials to the learners up to secondary level. Training to tutors, awareness programme to DRU faculty members of DIETs, skill development programme to learners and research programmes related to Non-formal education area are the other main activities of the department.

##### **Based on the Responses of Senior Faculty of SCERT and DTERT**

- SCERT has a very significant role in the area of Non-formal education starting from curriculum preparation to teacher training up to secondary level. But DTERT does not play any role in the area of Non-formal education.
- In SCERT, research programmes are carried out on Curriculum, Textbook, Evaluation, Pre-service and In-service teacher education, Population/ Adolescent education and Non-formal education areas. In DTERT, research activities are going on in all these areas except Evaluation and Non-formal education.

##### **Based on the Responses of Beneficiaries of SCERT and DTERT**

- Nearly half of the teachers (45%) from Kerala and only 7.5% from Tamil Nadu stated that they get opportunity to work in the Non-Formal/

Adult education programme of the state. Regarding the training on Non-formal/Adult education areas too, about 50% of teachers of Kerala and a small percentage (10%) from Tamil Nadu stated that they are getting training on Non-formal/Adult education areas. Among the teachers who are getting training on Non-formal/Adult education areas, 97% from Kerala and 60% from Tamil Nadu opined that the training is beneficial to them. Kerala stands better than Tamil Nadu in providing training in the area of Non-formal/ Adult education.

### 5.2.5 Findings related to the Fulfilment of the Objectives of SCERT and DTERT

- Both SCERT and DTERT play substantial role in assisting the Government in policy formulation and implementation.
- SCERT and DTERT are unique institutions performing a wide range of academic activities for the department under General Education, including Curriculum development and implementation, preparation of Textbooks and Evaluation materials and research based activities. In the field of Teacher Education and Population Education too, SCERT and DTERT function in an impressive manner.
- In the field of school education, DTERT concentrates up to Upper primary level as suggested in the objectives of DTERT. In certain areas like the development of curriculum, textbooks and evaluation materials, DTERT extends its activities to the secondary level too. The range of SCERT is wider in all the above said activities including handbook preparation from Pre-primary to Higher Secondary level, as suggested in the objectives of SCERT.
- In-service and Pre-service education is one of the main area of concern of SCERT and DTERT. DTERT is concentrating only up to the Upper primary level in the area of Teacher Education but SCERT is concentrating up to Secondary level. At Higher secondary education area too, SCERT involves in the process of teacher training.
- Both SCERT and DTERT involve many research activities related to school education. SCERT extends such activities up to Higher Secondary level.
- SCERT Kerala also extends its activities to other sectors of education like Vocational Education, Technical Education, Open Schooling, Non-formal Education and Special Education from curriculum preparation to teacher training. Research activities are also carried out in these areas.

- The faculty members of both the institutions get the opportunity for attending Faculty Improvement Programmes outside the institutions. SCERT arranges National and International programmes for the development of faculty members within the institution.
- Both SCERT and DTERT have academic collaboration with Directorates of Primary education, Secondary education, SSA, DIETs, SIEMAT and institution for Information Technology. SCERT alone has collaboration with the Directorate of Higher secondary, Vocational higher secondary, Technical education, institution for Open Learning, institution for Literacy Mission and institution of Educational Technology.
- Though SCERT and DTERT are fulfilling the objectives prescribed, SCERT Kerala is contributing in a better and beneficial way in the field of the general education sector than DTERT Tamil Nadu.

### 5.3 TENABILITY OF HYPOTHESES

#### “The organizational structure of SCERT and DTERT is similar”.

Analysis of questionnaire to the faculty members of both SCERT and DTERT revealed that though the legal status of these two institutions are different organizational structure is identical owing to the fact that the nomenclature, the number of departments and the functions carried out by these departments are more or less same. Though in DTERT there are six specific departments, the faculty members are not working in a department-wise structure. But SCERT is working on a department-wise pattern. Hence in spite of the same organizational structure, different operational strategies have been followed in these two institutions.

Though when compared to SCERT, DTERT has less number of faculty members, DTERT is rich in the matter of permanent members both in the academic as well as non-academic side. A great majority of faculty members in SCERT are not satisfied with the service conditions, but in DTERT, all of them are well satisfied. This may be due to the fact that though the service conditions of the faculty members of DTERT are governed by state government rules, in SCERT there exists no specific rules and regulations. Therefore the above hypothesis is only partially substantiated.

#### “The functions of SCERT and DTERT are similar”

The role of the Kerala SCERT is substantial in assisting the government in policy formulation, framing curriculum and syllabus, development of textbooks and hand books and evaluation materials from the Pre-school education to Higher secondary level. It provides teacher training at all the

levels i.e. Pre-primary, Primary, Secondary, Higher Secondary, Vocational higher secondary, Technical education, Non-formal education, Special education, and Population education. But DTERT has a premier position at the primary level only. Hence, we may conclude that the above hypothesis is only partially substantiated.

**“The SCERT and DTERT give due importance to Non-formal/Adult education activities”.**

In Tamil Nadu, DTERT does not perform any activities for the Non-formal education area and there is no faculty in the department. The Tamil Nadu state Saksharatha Mission conducts the activities for the learners of Non-formal education. But in Kerala while there is KSLMA, SCERT also has a major role in this area. Hence the above hypothesis is fully rejected.

**“The beneficiaries are well satisfied with the activities carried out by the SCERT Kerala and DTERT Tamil Nadu”.**

SCERT and DTERT are the premier institutions in school education concerned with the development of curriculum, preparation of text books and other teaching-learning materials and providing teacher training in the states concerned. The beneficiaries of both the institutions opined that they get training when curriculum and text books change. But the teachers of Kerala get more chance to participate in the activities related to curriculum, textbooks handbooks and evaluation materials. Subsequently, the materials prepared by DTERT are not made available to the beneficiaries in time when compared to SCERT Kerala. Hence the above hypothesis is only partially substantiated.

**“SCERT and DTERT function in such a way as to fulfil the basic objectives of the institutions concerned”.**

Both SCERT and DTERT play a very crucial role in school education and they are the most important institutional mechanisms for assisting the government in formulating and implementing policies related to school education.

The major functions performed by both these institutions are formulating curriculum and syllabus, preparation of textbooks, pre-service and in-service training to teachers and research in education. In the aims and objectives of SCERT it is expressively stated that the objectives of SCERT are “to provide advice for the state government on policies and programmes for enhancing quality in school education and to act as a clearing house for ideas and information in matters related to school education”.

It is pertinent to note that DTERT is concentrating only up to the upper primary level in the area of curriculum development, textbook preparation, preparation of evaluation materials and teacher training. DTERT is very recently concentrating in the area of curriculum, textbook and evaluation at the secondary level. In the objectives charted out by DTERT, it is clearly cited that the role of DTERT is limited to the upper primary level in the area of teacher training. So SCERT and DTERT are performing in a better way to fulfil the basic objectives of the institutions concerned. Hence the above hypothesis is highly substantiated.

## 5.4 CONCLUSION

The present study is an attempt to trace the organizational pattern and functional aspects of SCERT Kerala and DTERT Tamil Nadu and suggest suitable measures to enhance the same. The following are the conclusions arrived at from the study.

### 5.4.1 Regarding Organization

Both in Kerala and Tamil Nadu, SIE was established in the year 1964 and 1965 respectively. But in Tamil Nadu, SIE was converted in to SCERT in the year 1970. This was then reconverted into DTERT in 1990. But in Kerala, SIE was converted into SCERT in 1994.

Kerala SCERT is an autonomous body registered as a charitable society under the control of state government. But DTERT is under the direct control of state government. The Honourable Minister for Education is the Chairman of the Governing Body of SCERT but DTERT is governed by the state government.

Analysis of questionnaire to the faculty members of both SCERT and DTERT revealed that though the legal status of these two institutions are different, their organizational structures are identical owing to the fact that the nomenclature, the number of departments and the functions carried out by these departments are more or less the same. In DTERT there are six specific departments, but the faculty members are not working in a department-wise structure. Whereas SCERT is working on a department-wise pattern. So in spite of the same organizational structure, different operational strategy has been followed in these two institutions.

Though when compared to SCERT, DTERT has lesser number of faculty members, DTERT is rich in the matter of permanent faculty members both on the academic as well as non-academic side. A good majority of faculty members in SCERT are not satisfied with the service conditions, but in

DTERT, all of them are satisfied in this respect. This may be due to the fact that though the service conditions of the staff of DTERT are governed by state government rules, in SCERT there exists no specific rules and regulations. All the faculty members of SCERT repeatedly pointed out the need for the formulation of rules and regulations for the institutions.

SCERT library is rich in terms of books and journals when compared to the DTERT library.

#### 5.4.2 Regarding Functions

The role of the Kerala SCERT is substantial in assisting government in policy formulation, framing curriculum and syllabus, development of textbooks and hand books and evaluation materials from Pre-school education to Higher secondary level. It provides teacher training at all levels i.e. Pre-primary, Primary, Secondary, Higher Secondary, Vocational higher secondary, Technical sector, Non-formal education, Special education, and Population education. But DTERT has a premier position at the primary level only.

At the TTC level, both SCERT and DTERT have a substantial role in all the activities except textbook preparation. But at the B.Ed level both SCERT and DTERT do not play any role.

In the case of Non-formal education and Special education, SCERT plays significant role and the role of DTERT is negligible.

In the area of Population/ Adolescent education, SCERT and DTERT plays a significant role. However, in the case of Art, Physical and Health education, SCERT plays a substantial role in developing curriculum and other learning materials while the role of DTERT is negligible. From Pre-primary to Higher secondary, SCERT prepares module for teacher training and provides state level training only. The other levels of training i.e. district level training and field level teacher training are carried out by DIETs, SSA and Higher Secondary Directorate in concerned levels. In the area of teacher education DTERT is involved only at the primary level and at secondary level it is carried out by the University of Teacher Education. So the catchment area of SCERT is wider than that of DTERT in this regard. However the position of DTERT is better in terms of direct involvement with field level teachers through training process.

In Kerala, the training for Educational Administrators would not come under the purview of SCERT and that duty is assigned to SIEMAT. But in Tamil Nadu it is carried out by DTERT.

Both SCERT and DTERT have linkage with other organizations/ institutions at the state, national and international levels. At the state level

SCERT is more interacting with academic institutions than DTERT. But DTERT shows more coordination at the district level than SCERT.

SCERT and DTERT carry out educational research in various aspects of curriculum and their findings are used for policy formulation. In SCERT, all the faculty members get chance to carry out research, projects and publish the findings of the research work. But in DTERT, only about 60% get such an opportunity.

The position of SCERT is better in the matter of Faculty Improvement Programmes. SCERT provides such programmes within the institution and arranges national as well as international programme for the betterment of faculty members. The DTERT does not provide any such programme within the institution and does not arrange international programmes. But faculty numbers of both institutions get chance to attend faculty improvement programme outside the institutions.

Regarding the training on approach, position of teachers in Kerala is better and regarding the aspects of pedagogy, position of Tamil Nadu teachers is better. It is found that SCERT concentrates on approach, evaluation and teaching aids while DTERT concentrates on pedagogy and content. Regarding the benefit received from in-service training, the teachers of Kerala entertains better appreciation. Regarding the impact of training for improving competency also, teachers of Kerala maintain a high opinion.

A vast majority of teachers from both Kerala and Tamil Nadu entertain the view that textbook, evaluation materials and training are essential to enhance professional performance. There is a strong demand on the part of teachers of Kerala and Tamil Nadu for handbooks as they consider it as one of the best tools for the class room transaction process.

In the matter of undertaking research projects and extension activities of SCERT and DTERT, the performance of both SCERT and DTERT is not commendable.

Regarding the institutions preferred for organizing special courses for developing teaching skills, teachers from both Kerala and Tamil Nadu prefer SCERT/DTERT, or SSA. Though in Kerala, teachers treated SSA as a suitable institution for training along with SCERT, Tamil Nadu teachers consider DTERT as the only suitable institution for developing teaching skills.

Regarding the frequency of training on classroom transaction, the position of Kerala teachers is better owing to the fact that teachers in Tamil Nadu do not get periodic training on classroom transaction. However teachers of Kerala and Tamil Nadu get training when curriculum and textbook changes.

Regarding the aspects of classroom transaction emphasized in training there is no difference between the teachers of Tamil Nadu and Kerala since a vast majority of teachers of both the states stated that both theoretical and practical aspects are emphasized in the training of classroom transaction.

Regarding the opportunity to get demonstration of classroom transaction, the position of Kerala teachers is better since majority of teachers get such opportunity. But only a meagre number of teachers in Tamil Nadu get such an opportunity. Regarding the level of internalizing classroom transaction also, teachers in Kerala are in a better position.

Regarding training to teach the children with special needs, Kerala is in a better position. Regarding evaluation, Kerala teachers are getting more chance to participate in the process. But both in Kerala and Tamil Nadu, the training processes related to evaluation is fine.

In the matter of involvement in Non-formal/Adult education activities, the position of Kerala is better. DTERT does not give much importance to the betterment of the Non-formal learners.

Only a negligible number of teachers from Kerala and Tamil Nadu acquire the ability to use technology in the classroom through formal training of SCERT/DTERT. Still, IT@ school is the leading institution for providing training in Educational Technology in both states.

Both in Kerala and Tamil Nadu, the participation of teachers in research activities of SCERT/DTERT is not commendable. A vast majority of teachers in both the states are not getting chance to participate in the educational research programmes carried out by the state. Majority of teachers of Kerala and Tamil Nadu are do not get the opportunity to know about the findings and suggestions of the educational research carried out in the state.

Majority of teachers from Kerala and a small number of teachers from Tamil Nadu felt that changes in curriculum and textbooks may be carried out according to the findings and suggestions of educational research work carried out by the state. Though the teachers of Kerala are in a better position in the matter of getting chance to undertake action research, the teachers of Tamil Nadu are in a better position to get the chance to publish the result of their research work.

Regarding facility to refer the materials and the availability of materials, teachers of Kerala are far ahead when compared to the teachers of Tamil Nadu.

DTERT gives due importance to co-curricular and extra-curricular activities when compared to SCERT. However, a vast majority of teachers from both the states get chance to improve the co-curricular and extra-curricular activities of their children through their curriculum.

A vast majority of teachers from Kerala and Tamil Nadu get training to evaluate the co-curricular and extracurricular activities of the children. Though the position of DTERT may be rated as excellent in this regard, the position of SCERT is also good.

Both in Kerala and Tamil Nadu, there is opportunity to provide value orientation through their curriculum. However the source of providing value orientation is different in both the states. It seems that though in Kerala, handbook and training are the major sources for providing value orientation, in Tamil Nadu training is the major source in this regard.

The position of Kerala teachers is better with regard to using the institutional library than the teachers of Tamil Nadu as the DTERT library is not open to the entire teaching community of the state. When compared to the teachers of Tamil Nadu, Kerala teachers get more chance to participate in curriculum activities like development of curriculum, textbooks preparation, preparation of handbooks and evaluation materials and acting as resource persons.

So it is concluded that SCERT and DTERT are unique institutions performing a wide range of academic activities for the departments under General Education, including curriculum development and implementation, preparation of textbooks and other teaching learning and evaluation materials, teacher training and research. The range of SCERT Kerala is wider from the Pre-primary to Higher Secondary level, but that of DTERT is confined to the Upper primary level.

Along with its work in these key areas, SCERT Kerala also attends to other service sectors in education like the field of Vocational Education, Technical Education and Open Schooling, Non-formal Education and Special Education. So it may be concluded that Kerala SCERT is contributing in a better and beneficial way than DTERT Tamil Nadu to the education sectors of the state.

SCERT and DTERT should be converted to Centres of Excellence in school education in the country. To achieve this the following points need special attention:

- SCERT and DTERT should act as advanced study centres for school education functioning as pace-setting institutions, specializing all major aspects of teaching, research and extension of school education from Pre-primary to Higher Secondary.
- Academic and administrative structure of SCERT and DTERT should be changed and they should work as institutions which is closely parallel to NCERT.



- SCERT and DTERT shall liaison with advanced centres of educational research in the world and utilize their resources for producing work-class curriculum and materials.

## 5.5 RECOMMENDATIONS

The conclusions arrived at from the study clearly point out that though the institutions assigned for educational research and training in Kerala and Tamil Nadu perform their functions in a more or less satisfactory manner as apex bodies in the states, both these institutions should shoulder more responsibilities related to school education.

Based on the conclusions arrived at, the following recommendations are made, which the Investigator hopes would help educationists and policy makers to bring in qualitative changes in the field of school education.

### 5.5.1 Administrative Matters

1. Staff strength should be improved both in SCERT and DTERT for ensuring qualitative improvement in the field of school education.
2. The Government should initiate steps to formulate the rules and regulations of SCERT Kerala.
3. The representation of higher level officials in support system should be strengthened in SCERT.
4. Permanency in staff pattern both at the academic and administrative level should be ensured in SCERT.
5. Facilities related to residential activities should be improved both in SCERT and DTERT.
6. Like Tamil Nadu, an idea of educational complex should be brought in Kerala so as to bring all the educational institution under a single umbrella.
7. Like the academic staff college in the higher education sector, a teacher training institute under the control of SCERT and DTERT may be formulated for providing training for teachers of general education department.

### 1.1.2 Academic Matters

1. More duty should be assigned to DTERT in the area of pre-primary, secondary and higher secondary sectors of education.
2. More professionalism should be maintained in the curriculum and textbook development of DTERT.

3. A high level committee like the Curriculum Committee of Kerala should be maintained in DTERT for assuring the quality of materials.
4. In DTERT more teacher participation should be ensured in the development of curriculum, text book and evaluation process of the state.
5. DTERT should emphasize evaluation in their teachers training programmes.
6. Periodic training to teachers should be ensured by DTERT.
7. For supporting classroom transaction, handbooks should be developed by DTERT.
8. Steps should be taken to make available the materials prepared by DTERT to the teachers in proper time.
9. More linkage should be maintained with agencies like VHSE, THSE, Open school, Literacy Mission etc.
10. Both in SCERT and DTERT, IT based teaching aids should be developed and supplied to teachers for improving classroom transaction.
11. Academic control over SSA and DIET should be ensured in SCERT.
12. Academic control over SSA should be ensured in DTERT.
13. The Non-formal education area should be strengthened in DTERT.
14. New departments related to Art, Physical and Health education should be formulated in DTERT.
15. Before the implementation of academic programmes, enough planning should be made both in SCERT and DTERT.
16. Library of DTERT should be strengthened and membership should be extended to the entire teaching community in the state too.
17. Faculty improvement programmes within the institution should be strengthened in DTERT.
18. Opportunity should be provided to the faculty members of SCERT and DTERT to attend national as well as international workshops and seminars.
19. Exposure visits to other SCERTs in the country should be promoted for the sharing of experiences between faculty members.
20. Department-wise function in DTERT should be promoted to ensure better performance.
21. Performance assessment of the faculty members should be recorded for promotion.

22. In DTERT, Programme Advisory Committee (PAC) should be maintained to assess the quality of programmes.
23. Co-ordination of activities between agencies like SSA, DPI, SIEMAT etc. should be strengthened both at SCERT and DTERT.
24. Linkage with other SCERTs in the country should be encouraged.
25. Opportunity should be given to teachers of both Kerala and Tamil Nadu for engaging in the research activities of the state.
26. In order to strengthen the Pre-service education, linkage with teacher education institutions like CTEs and IASEs should be maintained.
27. Teacher education curriculum should be framed with the ample assistance of SCERT and DTERT.

### 5.6 SUGGESTIONS FOR FURTHER RESEARCH

On the basis of the present study, the Investigator would like to offer certain suggestions for further study. While the suggestions cannot be regarded as very exhaustive and complete, an attempt has been made to test some areas of immediate interest to the Investigator here under:

- Similar studies of other SCERTs.
- The role of SCERTs in the academic activities of self financing schools following state syllabus.
- Linkage of SCERT and other educational agencies related to school education.
- Comparative study of research programmes in different SCERTs.
- Comparative study of training programmes in different SCERTs.
- Comparative study of teacher education area in different SCERTs.
- Comparative study of the curriculum, syllabus and textbook of different states and the role of SCERTs in such activities.
- Process of evaluation and the role of SCERTs in these activities.
- Both terminal and continuous evaluation in different states and the role of SCERT.
- Other dimensions of institutions, such as comparison of pre-primary teacher training institution of different states.
- Primary Teacher Training Institutions of different states.
- Graduate teacher training institutions of different states.
- Post graduate teacher training institutions of different states.
- Case studies of SCERTs of different states.

- Case studies of SSAs of different states.
- Case studies of DIETs of different states.
- Comparative study of the activities of SIEMAT of different states.
- Comparative study of the activities of IT projects of different states.
- Comparative study of the activities of SIETs of different states.
- Case studies of remaining SIEs in the country.
- Effectiveness of intervention programmes conducted by SSA of different states.
- Comparative study of the effectiveness of the intervention programmes of SCERTs and SIEs in the country.

It is hoped that the study has brought to light some useful information regarding the organizational structure and functions of SCERT Kerala and DTERT Tamil Nadu and also the necessity to take measures for uplifting the status of these institutions as centres of excellence in the area of general education.

## APPENDICES

### Appendix-I

#### LIST OF EXPERTS

---

---

1. **Dr. B. Vijayakumar** (Late), Former State Project Director, SSA Kerala.
2. **Dr. Shilaja Chennat**, Associate Professor, Dept. of Education, University of Delhi, Delhi.
3. **Dr. Celine Pereira**, Associate Professor, School of Pedagogical Science, M.G. University, Kottayam, Kerala.
4. **Dr. Sr. A. Mercykutty**, Principal, Mar Theophilus Training College, Thiruvananthapuram, Kerala.
5. **Dr. Theresa Susan**, Associate Professor and Head, Dept. of Education, University of Kerala, Thiruvananthapuram.
6. **Dr. Amruth G. Kumar**, Assistant Professor, Dept. of Education, Central University, Pondicherry.
7. **Dr. R. Rajeswary**, Assistant Professor, College of Teacher Education, Thiruvananthapuram, Kerala.
8. **Dr. K. Chellappan**, Associate Professor, Dept. of Adult and Continuing Education and Extension, Gandhigram University, Dindigal, Tamil Nadu.

## Appendix-II

### QUESTIONNAIRE-I

---

---

#### QUESTIONNAIRE TO THE SENIOR FACULTY MEMBERS OF SCERT/DTERT

I am doing Ph.D on the topic “Organization and functions of SCERT, Kerala and DTERT, Tamilnadu: Comparative Study”. So I am in need of certain information regarding the organization of SCERT/DTERT in general, kindly provide objective data and help me in this venture. Only with your co-operation, I can make the study successful.

Thanking you  
Yours faithfully  
Sobha Jacob

#### PART - A

Name of the faculty :  
Gender :  
Age : Upto 35 / 35-50 / above 50  
Educational qualifications :  
Total Experience :  
Experience in SCERT/DTERT : below 10 years / 10-15 / above 15

#### PART - B

1. Which type of organizational structure is existing in your institution?  
Directorate/Council/Institute/Any other, please specify
2. How is the head of your institution designated?  
Director/Commissioner/Any other, please specify
3. Is there any subordinate officers under the director, other than the faculty members? Yes/No  
If yes, how is he designated?

4. How many faculty members are there in total in your institution?
5. Whether each faculty member belongs to a particular department? Yes / No
6. At present how many departments are there in your institution?
7. Whether the establishment of new department desirable? Yes / No  
If yes, suggest the name of the department.
8. Is there any need to bifurcate any existing department? Yes / No  
If yes, which is the department to be bifurcated?
9. Please write the names of departments which are existing in your institution at present and write the total number of staff working in each department?

No.	Name of the department	Number of Staff
1		
2		
3		
4		
5		
6		
7		
8		

10. Rank the following faculty of SCERT / DTERT in the ascending order.
  - a. Lecturer/Research officer
  - b. Assistant Professor
  - c. Associate Professor
  - d. Professor
  - e. Any other, specify
11. What is the nature of appointment of the faculty of SCERT/DTERT?  
Permanent/on deputation/both

12. How many members of permanent staff are there in your institutions?
13. How many members of deputed staff are there in your institutions?
14. What was the modes of selection of the permanent staffs?  
by interview/written test/both/Any other, specify
15. If on deputation, from where they are appointed?  
Schools/DIETs/Colleges/Universities/Teacher Education departments/  
Any other specify
16. Are there any faculty coming under the following categories?  
Faculty on contract basis/Visiting faculty/Guest faculty/Consultants
17. How many members of ministerial staff are at present working in your institution?
18. What is the nature of their appointment?  
permanent/on deputation/both
19. Among the ministerial staff how many members of permanent staff are there in your institutions?
20. How many deputed staffs are there in your institutions?
21. If they are appointed on deputation, specify their parent departments?
22. Please rank the following administrative staff in the ascending order  
Finance officer / Administrative officer/Accounts officer/Public relations officer/Office superintendent
23. Is there any statutes, rules and regulations in your institution? Yes/No
24. What type of the statute, rules and regulations are adopted in your institution?  
rules and regulations of SCERT-DTERT / State rules / Any other specify
25. Which type of salary are you drawing in your institution?  
U.G.C / Central Govt. Salary / State salary / Special salary by SCERT-DTERT / Any other specify
26. Are the seatings arranged in your institution department wise? Yes/No
27. What is the nature of the seating arrangements?  
separate room/cabin/any other specify
28. Whether the following facilities are provided to each of the faculty?

No.	Facilities	Yes	No
i	Chair and table		
ii	Storage facilities		
iii	Computer		
iv	Internet		

29. Whether your institution is housed in:- the government property/own property/rented property?

30. How much might be the area of the building of your institution?  
Below 5,000 sq.feet / between 5,000-8,000 / above 8,000

31. How much might be the compound of your institution?  
Less than 50 cent / between 50-100 / above 1 acre

32. What is the nature of workshops / training you are conducting in your department?  
Residential / Non residential / Both

33. Is there any permanent facilities for conducting workshop / training in your institution? Yes/No

34. If no, how will you conduct this workshop / training?

35. Is there any separate conference / seminar hall in your institution? Yes/No

36. If yes, is it fully furnished with the latest multi-media facilities? Yes/No

37. Do you have separate library/information resource centre in your institutions? Yes/No

38. If yes, is there a qualified librarian in your library/information resource centre? Yes/No

39. How many books and journals do you have in your library?

40. Does the library work as an information centre to the teaching community of your state? Yes/No

41. Do you have the following facilities for the printing of the materials? (Put ü marks)

(a) Computer centre with printing facilities

(b) Printing press

(c) Xerox copier

(d) Risograph

42. Does your institution has transport facilities? Yes/No

43. How many vehicles your institution have?

44. Is it adequate to satisfy your official purposes? Yes/No

45. Are you satisfied with the present organizational structure of the institution? Yes/No

### PART - C

46. What is the role of SCERT/DTER in the following matters? (Put ü marks)

	Matter	No role	Minimum role	Substantial role
i	Assist the Government in educational policy formulation			
ii	Implementation of government's educational policy			
iii	Framing of curriculum			
iv	Preparation of syllabus			
v	Development of Textbooks			
vi	Development of Handbooks			
vii	Development of Evaluation Materials			
viii	Development of Additional Reading Materials			
ix	Pre-service Education Material (TTC)			
x	Population/Adolescent Education Material			
xi	Special Education Material			
xii	Non-formal Education Materia			

47. What is the role of SCERT/DTERT in the following stages/levels of Education system? Put a mark for your answer. Can it more than one.

Level	Formulation of curriculum & syllabus	Preparation of textbook	Preparation of handbook	Preparation of additional reading material	Providing evaluation strategies	Training Module	Providing Training
a) Pre-primary							
b) Primary							
c) Secondary							
d) Higher Secondary							
e) IT Education							
f) Vocational Higher Secondary							
g) Technical Education							
h) Population Education							
i) Adolescent Education							
j) Non-formal Education							
k) Special Education							
l) Certificate Course of Teacher Education							
m) Graduat Course of Teacher Education							
n) Educational Technology							
o) Art Education							
p) Physical Education							
q) Health Education							
r) Open system of Learning (Open School)							

48. If you are providing training, up to what level do you deliver it?

No	Level	Module Preparation	SRG Training	DRG Training	Teacher Training
a)	Pre-primary				
b)	Primary				
c)	Secondary				
d)	Higher Secondary				
c)	TTC				
d)	Population education				
e)	Non-formal education				
f)	Special education				

49. If you are not providing training to the grass root level, which agency in you state conduct it?

SSA / DIET / SIEMAT / Any other agency, specify

50. Do you provide any IT enabled programme to the teaching community of your State? Yes/No

51. Do you provide any IT enabled programme to the students community of your state? Yes/No

52. If yes, how will you impart it? Directly through SCERT - DTERT / IT @ School / SSA/ Any other

53. Do you provide any audio visual training aids to the teaching community of your state? Yes/No

54. If yes, specify it.

55. Do you arrange any training programme to the following category of officials?

No	Category	Yes	No	If no, state the agency
(i)	DDE			
(ii)	DIET Principa			
(iii)	DEO			
(iv)	AEO			
(v)	HM			

No	Category	Yes	No	If no, state the agency
(vi)	Principal of the HSS			
(vii)	SSA Faculty			
(viii)	Other DIET Faculty members			

56. Do you provide any faculty improvement programme within the institution? Yes/No

57. Does your institution send faculty members outside the state for improving academic excellence? Yes/No

58. What is nature of the faculty improvement programme you have given for your faculty within the institution for the last two years?

Programme	State level	Agency	National level	Agency	International level	Agency
(a) Training						
(b) Workshop						
(c) Seminar						
(d) Conference						

59. Do you provide opportunity to carry out research projects related to

No.	Areas	Yes	No
(i)	Curriculum and Textbook		
(ii)	Evaluation		
(iii)	Pre-service Education		
(iv)	Teacher Training		
(v)	Population/Adolescent Education		
(vi)	Non-formal Education		
(vii)	Any other Specify		

60. Do you undertake research projects of the following agencies?

No.	Agencies	Yes	No
(i)	Central Government		
(ii)	State Government		
(iii)	ICSSR		
(iv)	NCERT		
(v)	CSIR		
(vi)	NEUPA		
(vii)	Any other Specify		

61. Will the agencies take in to account your research findings in formulating the policies? Yes/No

62. Do your institution publish any journal? Yes/No

63. If yes, give the name of the journal.

64. What is the periodicity of the journal.  
Monthly / Quarterly / Half yearly / Yearly

65. what is the type of article your journal prefer?  
Research articles / Theoretical papers

66. Who are the contributors for the journal? (Can tick more than one)  
Educationalist / Experts / Faculty members / School Teachers, any other specify

67. What is the nature of the control of the SCERT/DTERT over the following institutions?

Put ü mark for your answer. Can ü more than one.

No.	Institutions Control	Academic Control	Administrative	Both	None
i	Pre-primary schools				
ii	Primary schools				
iii	Secondary schools				
iv	Higher Secondary schools				

v	Technical Institutions				
vi	Vocational Institutions				
vii	SSA				
viii	DIET				
ix	Teacher Training Institutes				
x	Teacher Training Institutes awarding degrees (B.Ed)				
xi	Institutions like open learning(Like open schools)				
xii	Literacy mission (Like Saksharatha mission)				

68. What are the institutions with which SCERT/DTERT established academic collaboration? Put ü mark for your answer. Can ü more than one.

No.	Institutions	Yes	No
i	Directorate at primary level		
ii	Directorate at Secondary level		
iii	Directorate at Higher secondary level		
iv	Directorate at Vocational level		
v	Directorate at Technical level		
vi	SSA		
vii	DIET		
viii	Institutions for Educational Management (Like SIEMAT)		
ix	Institutions for Educational Technology (Like SIET)		

x	Institutions for Information Technology (Like IT@ School)		
xi	Institutions for Open learning (Like Open School)		
xii	Institutions for Literacy Mission (Like Saksharatha mission)		
xiii	Any other, specify		

69. What is the frequency of the staff meetings in your institutions?

No	Type of staff meeting	Weekly	By monthly	Monthly
i	With head and staffs			
ii	Heads of different department			
iii	Within the department			

70. Is there any combined meeting of academic and administrative staff for the smooth functioning of the academic programmes? Yes/No

71. Are you satisfied with the strategy adopted for the implementation of the programmes conducted by you? Yes/No  
If no, suggestions for improvement

72. Are you satisfied with the support given from the government? Yes/No

73. What are your suggestions for the total improvement of your institution?



## Appendix-III

### QUESTIONNAIRE-II

---

#### QUESTIONNAIRE TO THE FACULTY OF SCERT AND DTERT

I am doing ph.D on the topic “Organization and functions of SCERT, Kerala and DTERT, Tamil Nadu: Comparative Study”. So I am in need of certain information regarding the functions of SCERT and DTERT and your opinion about this institution. Kindly give objective data and help me in this venture. Only with your cooperation, I can make the study successful.

Thanking you  
Yours faithfully  
Sobha Jacob C.

#### PART - A

Name of the faculty :  
 Gender :  
 Age : Up to 35/35-50/ above 50  
 Educational qualifications :  
 Experience in SCERT/DTERT : below 10 yrs/above 10 yrs  
 Total Experience : below 10 yrs/ above 10yrs  
 Mode of appointment : Permanent/ deputation

#### PART - B

1. Do you think that the present legal status ( Autonomous Body / Government Department ) should be changed ? Yes/No
2. Do you satisfied with the present system of functioning as different departments in your institution? Yes/No
3. Do you think that the present staff pattern is sufficient to satisfy the functions of your institution? Yes/No
4. Are you satisfied with the physical conditions that you are given in the institution? Yes/No

- 
5. Do you have adequate facilities to perform comfortably in your institutions? Yes/No
  6. Do you get the chance for utilising the latest technological development in your institution? Yes/No

#### PART - C

7. Are you satisfied with the present functioning of your institution? Yes / No
8. Do you think that any of the functions performed by your institution shall be assigned to some other agency ? Yes / No  
If so, enumerate the functions
9. Do you think that any of the functions performed by some other agency shall be assigned to your institution ? Yes / No  
If so, enumerate the functions
10. Does your institution make available the prepared materials to the stakeholders in proper time? Yes / No
11. Does your institution provide training to the stakeholders in proper time? Yes / No

#### PART D

12. Do you get opportunity to carry out any research programmes related to your department? Yes/No
13. Do you get chances to publish the report of the research activities carried out by you? Yes/No
14. where do you publish the report of the research findings carried out by you?  
SCERT-DTERT Journal / Other Journal
15. Do you get any opportunity for the faculty improvement from your institution? Yes/No
16. Do you get any opportunity to attend the seminars / workshops outside the institution? Yes/No
17. Do you use your institutional library for your academic development? Yes/No

#### PART E

18. Are you satisfied with the support given by the authorities? Yes/No

19. Are you satisfied with the existing service conditions of your institutions? Yes/No
20. Are you satisfied with the salary allowances and perquisites? Yes/No
21. Do you have job satisfaction in your institution? Yes/No
22. Are you satisfied with the working atmosphere of your institution? Yes/No

**PART F**

23. What are the things to be given to you for your professional growth?
24. What are the points to be highlighted as plus points of your institution?
25. What are the limitations of your institution?
26. What are your suggestions to improve your institution?

**Appendix-IV**  
**QUESTIONNAIRE-III**

**QUESTIONNAIRE TO TEACHERS**

I am doing Ph.D on “Organization and Functions of SCERT Kerala and DTERT Tamil Nadu: Comparative study”. For this purpose, I have to collect certain data from you regarding the participation given to you in their programmes/activities and the benefits you receive from them. Kindly spare some time to fill the data in the space provided in the Questionnaire. The opinion and information given by you will be kept confidential and only be used for my research work. Your co-operation in this regard is solicited.

Thanking you  
Yours faithfully  
**Sobha Jacob**

**PART- I**

Name of the teacher : \_\_\_\_\_

Gender : \_\_\_\_\_

Age : \_\_\_\_\_

Designation : \_\_\_\_\_

School : ..... Govt/Aided

Educational qualifications : \_\_\_\_\_

Teaching Experience : \_\_\_\_\_ up to 5 years / between 5-15 years / above 15

**CURRICULUM**

1. Do you get the opportunity in the curriculum development process of the state? Yes/No
2. Will you be able to know the curriculum changes before it is implemented? Yes/No

3. Do you get the opportunity to know about the curriculum changes after its implementation? Yes/No

4. How will you get the chance to know about the curriculum changes before it is implemented?

(Can put ümark in more than one)

Sl.no	Ways by which curriculum changes are known	put ✓ mark
A	Workshop	
B	Training	
C	Documented material	

5. Which agency will arrange workshop/ training to know about the curriculum changes to you? (Can put ümarks in more than one)

SCERT-DTERT / DIET / SSA / Other agencies ( Please specify)

### Textbooks

6. Do you get the opportunity in the text book developing processes of the state? Yes/No

7. Will you be able to know about the revised text books before it is implemented? Yes/No

8. Do you get any chance to know about the revised text book after its implementation? Yes/No

9. How will you get the chance to know about the new text books before it is implemented?

(Can put ümark in more than one)

Sl.no	Ways by which textbook changes are known	put ✓ mark
A	Workshop	
B	Training	
C	Documented material	

10. Which agency will arrange workshop / training to you to know about the new text books?

SCERT-DTERT / DIET / SSA / Other agencies ( Please specify)

### Training

Which agency arrange in service training programme to you?

SCERT-DTERT/SSA/DIET any other (Specify)

In which of the following aspects of the textbooks, in-service training programmes is arranged to you?

(Can put ümarks in more than one)

Approach / Pedagogy / Content / Evaluation / Teaching aids.

13. How useful were the in-service training programmes given to you?

Very useful / Useful to some extent / To a limited extent/ Not at all

14. Are you satisfied with the in-service programmes given to you?

Fully / partially / To a limited extent/not at all

15. Please give self assessment of your personal competency based on the training.

Substantially increased /Increased/Static

### Classroom Transaction

16. How often do you get training in class room transaction?

Periodically / When curriculum and text book changes / Very rarely/ not at all

17. Which aspects of the class room transaction is emphasized in your training ?

Theoretical/Practical/Both

18. Will you get clear demonstration of the class room transaction?Yes/ No

19. How far, are you able to pick up the class room transaction process ?

to a great extent / to some extent / to a limited extent / not at all

### Content Enrichment

20. Will you be able to update your knowledge in the subject area through the training? Yes/No

21. If yes, When

Periodically/When curriculum and textbook changes / Rare occasion/ Not at all

### Evaluation

22. Do you get the chance to involve in the formulation of evaluation process of the state? Yes/No

23. How will you aware about the evaluation strategy of the state?

workshop / training / documented material / media

24. Are you competent enough in evaluating the child through training?  
Yes/No

### Professional Growth

25. What additional academic preparations would you require to further enhance your professional performance?
- Textbook
  - Handbook
  - Evaluation materials
  - Training
  - Any other (specify)
26. Through which of the following programmes, SCERT/DTERT of your state ensure better performance of teachers.
- Organizing curricular activities
  - Undertaking research projects
  - Undertaking extension activities
27. Do you feel that any special courses for developing teaching skills are needed for teachers? Yes/No
28. If yes, which is the best institution to provide such courses in your state?  
SCERT-DTERT / DIET / SSA / SIEMAT / any other, specify

### Special Education

29. How do you teach the children with special needs in your state?  
Special school / Inclusive Education / Any other, Please specify
30. Do you get training to teach the children with special needs? Yes/No
31. If yes, to what extent, this training is beneficial to you in your classroom transactions?  
Very useful/Useful to some extent/To a limited extent/Not at all

### Non-formal and Adult education

32. Do you get the chance to work in the Non-formal / Adult education programme of the state? Yes/No
33. How the Non formal / Adult education programme are implemented in your state?  
Through SCERT-DTERT / Literacy mission / SRC / Any other specify

34. Do you get training in Non-formal/Adult Education areas? Yes/No
35. Are the training in Non formal / Adult education beneficial to you?  
Yes/No

### Educational Technology

36. Do you get chance to utilize the technological equipments in your classroom? Yes/No
37. How do you acquire the ability to use the technology in your classroom?  
Through formal training of SCERT - DTERT / Edusat / Training through IT @ School / any other, specify

### Research

38. Do you get chance to participate in the Educational Research programmes carried out by the State? Yes/No
39. Do you get the opportunity to know the findings and suggestions of the educational research carried out by the State? Yes/No
40. Is there any opportunity to implement the suggestions of research carried out by the State? Yes/no
41. Do you think that curriculum and text book changes according to the findings and suggestions in the Educational Research carried out by the State? Yes/No
42. Do you get the chance to get the research journal published from SCERT/ DTERT ? Yes/
43. Do you get chance to do action researches in your field? Yes/No
44. Who help you to conduct action research?  
SCERT/DIET/SSA/any other (Specify)
45. Do you get any opportunity to publish the reports of your research studies in the journal published from SCERT/DTERT? Yes/No

### Materials prepared by SCERT/DTERT

46. Do you get opportunity to refer the materials developed by SCERT/ DTERT and the materials be made available in proper time in the following areas. Note down your opinion using ü mark. (Can put ü mark in more than one).

No	Area	Can refer		made available in time	
		Yes	No	Yes	No
A	Curriculum related				
B	Text book				
C	Hand book				
D	Evaluation related				
E	Special education				
F	Population/adolescent education				
G	Research based				
H	Non formal /adult education				
I	Any other (specify)				

#### Co-Curricular Area

47. Do you get the chance to improve the co-curricular and extra-curricular activities of the child through your curriculum? Yes/No
48. Do you get the chance to evaluate the co-curricular and extracurricular activities of the child? Yes/No
49. Do you get the training to evaluate the co-curricular and extra-curricular activities of the child ? Yes/No

#### Value Education

50. Do you get opportunity to provide value orientation through your curriculum? Yes/No
51. How will you get value orientation?  
Through hand book / Training / Document / Video conferencing / Any other

#### Library

52. Have you got the membership of SCERT/DTERT Library. Yes/No
53. Do you get the chance to make use of the SCERT / DTERT library? Yes/No
54. If yes, when do you make use of it?  
Periodically / rare occasions / not at all

#### Direct Involvement with the activities of SCERT and DTERT

55. Which of the following areas do you have direct involvement with SCERT/DTERT?  
(Can put ümark in more than one)
- (a) Curricular activities
- (b) Textbook preparation
- (c) Handbook preparation
- (d) Evaluation materials preparations
- (e) Research activities
- (f) Resource persons of the training
- (g) Any other (Specify)

## Appendix-V

### LIST OF OFFICIALS INTERVIEWED

---

---

1. **Professor K.A. Hashim**  
Director, SCERT, Kerala
2. **Professor K.V. Kunjukrishnan**  
State Project Director, SSA, Kerala
3. **Sri. K. Kesavan Potti**  
Principal, DIET, Thiruvananthapuram
4. **Dr. C Bhamini**  
Research Officer, Dept. of Non-formal, Continuing Education and Special Projects, SCERT, Kerala
5. **Dr. R.Elangovan**  
Director, DTERT, Tamil Nadu
6. **Dr. S.Kannappan**  
Joint Director SSA, Tamil Nadu
7. **Sri. C. Subrahmanian**  
Principal, DIET Theroor, Kanyakumary, Tamil Nadu

## Appendix-VI

### INTERVIEW SCHEDULE TO THE NON-FORMAL EDUCATION FACULTY OF SCERT AND DTERT

---

---

1. How many faculty members are working at present in your department?
2. Do you think that the present staff pattern is sufficient to carry out the functions of your department?
3. How do you manage the shortage of faculty in your department?
4. What are the main activities/programmes of your department?
5. Who is the funding agency of your department?
6. Do you have collaboration with any other agencies like Saksharatha Mission?
7. Do you provide the materials to the stake holders in proper time?
8. Do you provide any training to the tutors of the stake holders?
9. Do you carry out any research based activity related to your department?
10. Do you modify your programmes based on the research study?
11. Do you get sufficient support from SCERT/DTERT to carry out functions of your department?

## Appendix-VII

### INTERVIEW SCHEDULE TO THE DIRECTORS SCERT AND DTERT

---

---

1. What is the frequency of curriculum revision in your state?
2. How often SCERT/DTERT gives training in classroom transaction?
3. How often SCERT/DTERT enrich the teaching community in content area of the curriculum?
4. Do you think that you have full academic freedom in performing activities?
5. Is there any PAC for the finalisation of the programmes?
6. Do you arrange any national /international programmes within the for your faculty members?
7. Do you provide opportunity for attending national /international programmes?
8. Who prepare the textbooks for your state?
9. If you are preparing the textbooks for your state, at which level you are doing it?
10. What are the category of textbook writers in your state?
11. What is the mode of appointment of textbook writers in your state?
12. Is there any textbook development committee in your institution?
13. Which category of academicians include in this committee?
14. Do you prepare any other teacher learning materials other than textbooks? If yes, name them?
15. Who will give final approval for the textbooks and other learning materials?
16. Which is the printing and publishing agency of textbooks in your state?
17. How many wings/departments are there in SCERT/DTERT?
18. Are all the faculty members working in a department-wise structure?
19. Do you think that the present staff pattern is sufficient to satisfy the functions of your institution?
20. What is the nature of your control over DIET? (Academic, administrative, both)
21. What is the nature of control over SSA? (Academic, administrative, both)
22. Are you satisfied with the present legal status (autonomous/ directorate) of your institution?
23. Who give financial assistance for the functioning of your institution?
24. Who is the governing authority of SCERT/DTERT?
25. What is your opinion regarding the general functioning of SCERT/DTERT.
26. Do you feel any difficulty in the smooth functioning of the institution? if yes, reasons
27. How can you improve the functioning of SCERT/DTERT to make it more beneficial to teachers?

### Appendix-VIII

## INTERVIEW SCHEDULE TO THE STATE PROJECT DIRECTORS OF SSA KERALA AND TAMIL NADU

---

---

1. What are the academic activities you are undertaking under the scheme?
2. Up to which level you are providing training ?(L.P, U.P, H.S, H.S.S.)
3. If you are providing teacher training, from which level you are taking the leadership? (Core SRG, SRG, DRG, Teacher Training)
4. If you are providing teacher training at different levels, on which area you are concentrating?
5. Do you have any academic link with SCERT/DTERT for implementing academic activities? If yes, how?
6. Is there any other agency which gives academic support to you?
7. Do you have periodic meetings with SCERT/DTERT for the better implementation of the programmes?
8. Do you prepare any material like curriculum, textbook, evaluation materials for the educational system?
9. At what level are you preparing this material? (LP, UP, HS, HSS,All)
10. Who gives the final approval for this materials after its development?
11. what are the activities you are engaging under the Non-formal / Adult education area?

### Appendix-IX

## INTERVIEW SCHEDULE TO THE PRINCIPALS OF DIETS

---

---

1. What are the activities you are undertaking under your leadership?
2. Up to which level you are providing such activities?(LP, UP,HS,HSS)
3. If you are providing teacher training, from which level you take the leadership? (Core SRG, SRG, DRG, Teacher Training)
4. If you are providing teacher training at different level, on which area you are concentrating?
5. Do you have enough academic link with the SCERT/DTERT for implementing academic activities? If yes, how?
6. Do you prepare any material like curriculum, textbook, evaluation materials for the educational system?
7. If no, who will prepare such materials for the state?
8. Is there any mutual transfer between the faculty members of SCERTDTERT and DIETS?
9. What type of control SCERT hold over DIETS? (academic, administrative, both)
10. Is there any faculty concerned with Non-formal /Adult education?
11. What are the major activities you are carrying out in the area of Non-formal / Adult education?



## Appendix-X

### CRITERIA FOR THE ANALYSIS OF DOCUMENTS

---

---

- Evolution of SCERT and DTERT
- Vision and mission of SCERT and DTERT
- Aims and Objectives of SCERT and DTERT
- Organizational structure of SCERT and DTERT
- Functions of SCERT and DTERT
- Coordination of SCERT and DTERT with other organizations at state, national and international level

### BIBLIOGRAPHY

---

---

#### BOOKS

- Adams, D.K. (1971).** *Education in National Development*. London: Routledge.
- Aggarwal, J.C. (1966).** *Educational Research*. New Delhi: Arya Book Depot.
- Aggarwal, J.C. (1996).** *An Introduction to Educational Research*. New Delhi: Agra Books.
- Aggarwal, J.C. (2004).** *Development of Education System in India*. New Delhi: Shipra Publications.
- Altekar, A. and Sadashivnant, S. (1944).** *Education in Ancient and Medieval India*. New Delhi: Nand Kishore Bros.
- Ary, D., Jacobs, L.C., Razavieh, A. and Sorensen, C.K. (2002).** *Introduction to Research in Education* (6<sup>th</sup> ed). California: Thomson/Wadsworth.
- Austin, G. (1952).** *Indian Constitution: Corner Stone of a Nation*. Oxford: Oxford University Press.
- Ball, S. (2008).** *The Education Debate*. Bristol: Policy Press.
- Ball, A. F. and Tyson, C.A. (2011).** *Studying Diversity in Teacher Education*. Washington D C: American Educational Research Association.
- Barr and Johnson (1953).** *Educational Research and Appraisal*. Chicago: J.B. Lippincot.
- Best, J.W. (1977).** *Research in Education*. New Delhi: Prentice Hall of India.
- Brickhouse, T.C. and Smith, N.D. (2000).** *The Philosophy of Socrates*. Boulder, Colo: Westview Press.
- Brighouse, H. (2006).** *On Education*. London: Routledge Falmer.

- Broome, J. (1963)** *Rousseau: A Study of His Thought*. London: Edward Arnold & Co.
- Cane, B. (1969)**. *In-service Training: A Study of Teachers' Views and Preferences*. London, National Foundation for Educational Research in England and Wales.
- Chand, J. (2007)**. *Education in Ancient and Medieval India*. New Delhi: Shipra Publications.
- Chaplin, P.J. (1968)**. *Dictionary of Philosophy*. New Delhi: Dell Publishing Co.
- Chappell, V. (1992)**. *Essays on Early Modern Philosophy: John Locke — Theory of Knowledge*. London: Garland Publishing.
- Cohen, L., Manion, L., Morrison, K., Morrison, K.R.B. (2007)**. *Research Methods in Education*, (6<sup>th</sup> ed). London: Routledge Falmer.
- Coulson, A.J. (1999)**. *Market Education: The Unknown History*. New Jersey: Transaction Publishers.
- Counts, G.S. (1930)**. *A Ford Crosses Soviet Russia*. London: Stratford Co.
- Crawford, B. (1993)**. *Pre-Service Teacher Education Technology Courses at Historically and Predominantly Black Colleges and Universities: An Analysis*. Manhattan: Kansas State University.
- Curren, R. (2006)**. *A Companion to the Philosophy of Education*. London: Blackwell.
- Davidson, T. (1900)**. *Aristotle and the Ancient Education Ideals*. New York: Charles Scribner's.
- Dewey, J.J. (1916)**. *Democracy and Education: An Introduction to the Philosophy of Education*. New York: Macmillan.
- Durkheim, E. (1972)**. *Selected writings*. Cambridge: Cambridge University Press.
- Entwistle, N.J. (1998)**. Improving Teaching Through Research in Student Learning. In J.J.F. Forest (Ed.), *University Teaching in International Perspectives*. New York: Garland.
- Fletcher, S.S.F. and Welton, J. (Eds.).(1912)**. *Froebel's Chief Writings on Education*. London: Edward Arnold & Co.
- Forrell, P. and Aincow, M.(Eds.).(2001)**. *Making Special Education Inclusive*. London: David Fulton.
- Gall, M.D., Gall, Joyce P. and Borg, Walter R. (2006)**. *Educational Research: An Introduction* (8<sup>th</sup> ed.). Boston: Allyn & Bacon.

- Gandhi, M.K. (1951)**. *Basic Education*. Ahmedabad: Navajivan.
- Gandhi, M.K. (1977)**. *The Collected Works*. Ahmedabad: Navajivan.
- Gay, L.R. (2005)**. *Educational Research: Competencies for Analysis and Applications*, (8<sup>th</sup> ed). New Jersey: Prentice Hall.
- Ghosh, S.C. (2001)**. *History of Education in Ancient India*. New Delhi: Munshirm Manoharlal Pub.
- Ginsburg, H.P. (1987)**. *Piaget's Theory of Intellectual Development* (3<sup>rd</sup> ed). New Jersey: Prentice Hall.
- Good, C.V., Barr, A.S. and Scates, D.E. (1952)**. *Methods of Research*. New York: Appleton Centaury Crofts Inc.
- Goyal, J.C. and Gouswami, V.A. (2000)**. *Educational Administration in Daman and Diu: Structure, Process and Future Prospects*. New Delhi: NIEPA.
- Graff, O.B., and Street, C.M. (1957)**. Developing a Value framework for Educational Administration. In R.F. Campbell & R.T. Gregg (Eds.). *Administrative Behaviour in Education*. New York, Harper.
- Greene, J. (1971)**. *School Personnel Administration*. Philadelphia, Pennsylvania :Chihon Book.
- Grossman, M. (1972)**. *The Philosophy of Helvetius, with Special Emphasis on the Educational Implications of Sensationalism*. New York: AMS Press.
- Gutek, G.L. (1968)**. *Pestalozzi and Education*. New York: Random House.
- Heredia, R.C. (1981)**. *Structure and Performance of College Education- An Organizational Analysis of Arts and Science Colleges in Bombay*. Bombay Social Science Centre: St. Xavier's College.
- Inamdar, N.R. (1971)**. *Educational Administration in the Zilla Parishads in Maharashtra: A Pilot study*. New Delhi: ICSSR.
- Jayapalan, N. (2005)**. *History of Education in India*. New Delhi: Atlantic Publishers & Dist.
- Kapoor, M.M., Vadhera, R.P. and Majumdar, Srilekha (1994)**. *Educational Administration in Arunachal Pradesh: Structure, Process and Prospects for the Future*. New Delhi: Vikas Publishing House.
- Kapoor, M.M., Dhangar, Amrit and Tyagi, R.S. (1994)**. *Educational Administration in Punjab: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.

- Kaul, V. (2002).** Early Childhood Care and Education. In R. Govinda (Ed.), *Indian Education Report*. New Delhi: Oxford University Press.
- Kelley, A.V. (1989).** *The Curriculum: Theory and Practice*. London: Paul Chapman.
- Kumar, K. (1994).** Mohandas Karamchand Gandhi. In Morsy, Z.(Ed.), *Thinkers on Education, Vol.2*, Paris: UNESCO.
- Laski, H. J. (1967).** *A Grammar of Politics* (5<sup>th</sup> ed.). London: Harper Collins Publishers Ltd.
- Lawrence, E. (Ed.). (1952).** *Friedrich Froebel and English Education* (Series of Essays on Key Elements of Fröbel's Thought and Practice). London: University of London Press.
- Mahajan, B., Tyagi, R.S. and Kumar, Sarwan (1994).** *Educational Administration in Haryana: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Mahajan, B., Majundar, Srilekha and Singh, Beant (1995).** *Educational Administration in Andaman Nicobar Islands: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Mahajan, B., Goyal, J.C. and Sharma, G.D. (1995).** *Educational Administration in Rajasthan: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Mahajan, B., Goyal, J.C. and Uranker, R.V. (1994).** *Educational Administration in Goa: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Mahajan, B., Goyal, J.C. and Char, Raghavendra (1994).** *Educational Administration in Karnataka: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Mahajan, B., Majundar, Srilekha and Agnihotri, D.C. (1995).** *Educational Administration in Sikkim: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Mahajan, B., Tyagi, R.S. and Kaur, Kuldeep (1995).** *Educational Administration in Chandigarh: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Mahajan, B., Goyal, J.C. and Sharma, G.D. (1995).** *Educational Administration in Lakshadweep: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.

- Majundar, Srilekha and Mark, Torist (2000).** *Educational Administration in Meghalaya: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Malinowski, B.K. (1945).** *The Dynamics of Culture Change*. Yale: Yale University Press.
- Mannheim, K. (1930).** *Sociology as Political Education*. New Jersey: New Brunswick, Transaction.
- Mathew, A. (1984).** *Ministry of Education of the Government of India. An Organizational History*. New Delhi: NIEPA.
- Mathew, A. (1987).** *A History of Educational Development in Kerala*. New Delhi: NIEPA.
- Mishra, R.C. (2009).** *History of Education Administration*. New Delhi: APH Publishing Corporation.
- Molnar, A. (2002).** *School Reform Proposals*. North Carolina: Information Age Publishing.
- Mookerji, R. (1990).** *Ancient Indian Education: Brahmanical and Buddhist*. Varanasi: Motilal Banarsidass.
- Mouly, G.J. (1970).** *The Science of Educational Research*. New York: American Book Co.
- Mouly, G.J. (1963).** *The Science of Educational Research*. New York: Van Nostrand Reinhold Co.
- Mukhopadhyay, M. and Murthy, C.R.K. (1986).** *Personnel Structure in Engineering Colleges*. New Delhi: NIEPA.
- NCERT (2006).** *National Focus Group on Educational Technology*. Position Paper. New Delhi: NCERT.
- Needham, J. (2004).** *Within the Four Seas: The Dialogue of East and West*. London: Routledge Falmer.
- Nisbet, John Donald and Entwistle, Noel James (1970).** *Educational Research Methods*. New York: American Elsevier Publishing.
- Noonan, P., Burkner, G. and White, P. (2004).** *Policy Development in VET: Analysis for Selected Countries*, Working paper No. 54. Monash University Melbourne, ACER Centre for the Economics of Education and Training.
- NUEPA(2009).** *Adult Literacy and Lifelong Learning in India*, New Delhi, NUEPA.

- Oliver, W. Y. (1981).** *The In service Education Needs of Mississippi Public Junior College Trustees*. Mississippi: University of Mississippi.
- Raj, A.B.C. (1975).** *Survey on Management and Administration of Education in Tamil Nadu*. Chennai: ASCL.
- Ranganathan, V. (1991).** *Developing a Plan for In-service Education of Elementary Teachers at District Level*. New Delhi: NIEPA.
- Rao, G.R.S. (1981).** *A Comprehensive Study of Educational Administration and Management of School Systems in the State of Karnataka*. Hyderabad: Administrative Staff College of India.
- Rao, V.K. (2001).** *Population Education*. New Delhi: AHP Publishing.
- Rossi, P.H. and Freeman, H.E. (2003).** *Evaluation: A Systematic Approach*. London: Sage Publications.
- Sharma, R.N. and Sharma, R.K. (1996).** *History of Education in India*. New Delhi: Atlantic Publishers.
- Sharp, H. and Richey, J.A. (1920).** *Selections from Educational Records of Government of India Vol. 2*. Calcutta, Govt. Printing Press.
- Sidhu, K.S. (1985).** *Methodology of Research in Education*. New Delhi: Sterling Publishers.
- Singh, Y.K. (2007).** *History of Indian Education System*. New Delhi: APH Publishing Corporation.
- Sinha, A., Tyagi, R.S. and Thakur, R.S. (1997).** *Educational Administration in Himachal Pradesh: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Sinha, A., Mahajan, B., Majundar, S. and Ghose, S.K. (1996).** *Educational Administration in Tripura: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Sinha, A., Tyagi, R.S., Singh, U.P. and Chandhary, T.N. (1994).** *Educational Administration in Bihar: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Sinha, A., Majundar, S. and Barua, P.K. (1999).** *Educational Administration in Assam: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Sinha, D.H. (1979).** *Study of Improvement of Management in University Administration*. Poona : Poona ASCI, University of Poona.
- Spencer, H. (1911).** *Essays of Education and Kindred Subjects*. London: J. M. Dent & Sons Ltd.

- Steiner, R. (1996).** *The Education of the Child*. New York : Anthroposophic Press.
- Stenhouse, L. (1975).** *An Introduction to Curriculum Research and Development*. London: Heinemann.
- Stenhouse, L. (1984).** Artistry and Teaching: The Teacher as Focus of Research and Development. In David Hopkins, Marvin Wideen (Eds.), *Alternative Perspectives on School Improvement*. London, Routledge Falmer.
- Sujatha, K. (2009).** *Educational Administration in Andhra Pradesh: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Sukhia, S.P., Mehrotra, P.V. and Mehrotra, R.N. (1983).** *Elements of Educational Research*. New Delhi: Allied Publishers.
- Thyagi, R.S. and Singh, A.K. (2000).** *Educational Administration in Gujarat: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Thyagi, R.S. and Singh, A.K. (2001).** *Educational Administration in Manipur: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Thyagi, R.S. and Singh, A.K. (2001).** *Educational Administration in Pondicherry: Structure, Process and Future Prospects*. New Delhi: Vikas Publishing House.
- Tooley, J. (2002).** *The Global Education Industry*. London: Institute of Economic Affairs.
- Travers, R.M.W. (1959).** *Educational Measurement*. New York: The Macmillan Company.
- UNFPA (1997).** *State of World Population*.
- Varkey, C.J. (1940).** *The Wardha Scheme of Education: An Exposition and Examination*. Madras: Oxford University Press.
- Watson, K. (Ed.). (2001).** *Doing Comparative Education Research: Issues and Problems*. Oxford: Wallingford.
- West, E.G. (1994).** *Education and the State*. Indianapolis: Liberty Fund.
- JOURNALS**
- Allen, Cecil H. (1940).** In-service Training of Teachers. *Review of Educational Research*, 10, 210-215.

- Blanchett, W.J. (2009).** The Intersection of Race, Culture, Language, and Disability Implications for Urban Education. *Urban Education*, 44, 389-409.
- Brown, F.J. (1973).** Economic Crisis in Private Education: Whither Now? *Review of Social Economy*, 31, 93-95.
- Burrington, A.H. (1985).** Health and Academic Job Motivation of Seventh Day Adventist Administrators in North America. *Dissertation Abstract International*, 47,12.
- Chafer, T. (2007).** Education and Political Socialisation of a National-Colonial Political Elite in French West Africa, 1936-47. *The Journal of Imperial and Commonwealth History*, 35 (3), 437-458.
- Collins, R. (1971).** Functional and Conflict Theories of Educational Stratification. *American Sociological Review*, 36, 1002-1019.
- Duckers, A. (1974). In- service Education: A Rationale. *South Pacific Journal of Teacher Education*, 31(1), 54-59.
- Gatzels, J.W. and Cuba, E.G. (1970).** Social Behaviour of the Administrative Processes. *The School Review*, 61, 423-41.
- Grace, G. (1989).** Education Commodity or Public Good. *British Journal of Educational Studies*, 3, 203.
- Halpin, A. (1955).** The Leadership Behaviour and Leadership Ideology of Educational Administrators and Aircraft Commanders. *Harvard Educational Review*, 25, 18-31.
- Hemphill, J.K. (1955).** Leadership Behaviour associated with the Administrative Reputation of College Departments. *Journal of Social Psychology* 46, 385-401.
- Jaixu, S. (2011).** Study on Primary and Secondary School Principal Training Research Based on Implicit Wisdom. *The Journal of Doctoral Research in Education*, 11,14.
- Misgeld, D. and Magendzo, A. (1997).** Human Rights Education, Moral Education and Modernisation: The General Relevance of Some Latin American Experiences: A Conversation. *Journal of Moral Education*, 26, 151-68.
- Moore, R.J. (1965).** The Composition of 'Wood's Education Despatch'. *The English Historical Review*, 80, 70-85.
- Rossi, P. (1965).** Scientific Objectivity and Value Hypothesis. *International Social Science Journal*, 17, 64.

- Ryes, B.J. and Williams, J.M.B. (2003).** The Role of Textbooks in Implementing the Curriculum Principle and the Learning Principle. *Mathematics Teaching in the Middle School*, 9 (2), 120 – 124.
- Scherger, S. (2010).** Cultural Transmission, Educational Attainment and Social Mobility. *The Sociological Review*, 58 (3), 406–428.
- Verma, Y. and Rana, S. (1992).** Organizational Effectiveness in Universities: Impact of Personal Characteristics of Managers. *Indian Educational Review*, 27,142.
- Wijesinhe, Gita (1987).** Indian Philosophy as a Means for Understanding Modern Ashram School. *Comparative Education*, 23,238.

### POLICIES

*National Policy on Education 1968* (Government of India).

*National Policy on Education 1986* (Government of India)

### REPORTS

*Report of the Indian Education Commission 1883* (Hunter Commission, Calcutta: The Superintendent of Government Printing India).

*Report of the University Education Commission 1948* (Radhakrishan Commission, Government of India).

*Report of the Secondary Education Commission 1953* (Mudaliar Commission, Government of India).

*Report of the Indian Education Commission 1966* (Kothari Commission, Government of India).

*Report of the Committee to Review the National Policy on Education 1986* (Acharya Ramamurthi Committee, 1990 Government of India).

*Report of the Committee to Suggest Modification to National Policy on Education 1986* (Janardhan Reddy Committee Report, 1992, Government of India).

*Report of the National Advisory committee appointed by the Ministry of Human Resource Development 1993* (Yashpal Committee, Government of India).

*Report of the National Curriculum Framework for School Education-2000* (NCFE-2000: Government of India).

## THESES

- Amarnath, K. (1980).** *Comparative Study of the Organizational Climate of Government and Privately Managed Higher Secondary Schools in Jullundur District.* Ph.D. Thesis, Punjabi University, Patiala.
- Bajpal, M. (1984).** *A study of the Administration of Secondary Education in Uttar Pradesh after Independence.* Ph.D. Thesis, Karnataka University, Dharwad.
- Baruah, H. (1983).** *A Critical Study of the Administration of Secondary Schools of Assam in Post Independence Period(1947-1977).* Ph.D. Thesis, Gauhati University, Gauhati.
- Baraiya, V.V. (1985).** *A Study of the Organizational Climate of Higher Secondary Schools of Gujarat State in Relation to Certain Variables.* Ph.D. Thesis, S.V. University, Tirupathi.
- Barooah, T.N. (1986).** *Development of Polytechnic Education in Assam and its Impact on Socio-Economic Growth.* Ph.D. Thesis, Gauhati University, Gauhati.
- Baruah, S. (2004).** *Organizational Climate of Government and Privately Managed High Schools of Kamrup District: A Comparative Study.* Ph.D. Thesis, Gauhati University, Gauhati.
- Bavakutty, M. (1984).** *A Critical Study of the Organization and Utilization of Libraries in Higher Educational Institutions in Kerala.* Ph.D. Thesis, University of Kerala, Thiruvananthapuram.
- Bhatnagar, M. (1979).** *A study of Organizational Climate of Teacher Training Institutions of U.P and its relationship with their effectiveness.* Ph.D. Thesis, Meerut University, Meerut.
- Boel, W. (1980).** *An Analysis of the Kerala Education Act of 1958 and the Related Rules and Regulations.* Ph.D. Thesis, University of Kerala, Thiruvananthapuram.
- Chaudhary, K. (2002).** *A Comparative Study of Formal and Non- Formal Methods of Teacher Education for Teaching English.* Ph.D. Thesis, V.M.O.U., Kota.
- Chauhan, C.S. (1983).** *A Study of the Characteristics of Innovative Educational Administrators of Gujarat State.* Ph.D. Thesis, S.P. University, Tirupathi.
- Damoder, D. (1973).** *A Critical Evaluation into the Practice of Student Teaching and Evaluation in the Training Colleges of Andhra Pradesh.* Ph.D. Thesis, M.S. University, Baroda.

- Das, J.C. (1987).** *A Study of the Administration of Examinations of the Board of Secondary Education, Assam, with Special Reference to the Impact of Reforms Introduced since 1976 on the Conduct of HSLC Examination.* Ph.D. Thesis, Gauhati University, Gauhati.
- Das, M. (1983).** *A Study of the Administrative Behaviour of Secondary School principal's in Relation to Selected School Variables.* Ph.D. Thesis, M.S. University, Baroda.
- Deka, G. (1982).** *Organization of Pre-primary Education in Assam.* Ph.D. Thesis, Gauhati University, Gauhati.
- Dhulla, Usha (1989).** *A Study of the Role, Administrative Style, Teacher's Job Satisfaction and Students' Institutional Perceptions in Determining the Nature of School Climate.* Ph.D. Thesis, Hemawati Nandan Bahuguna Garhwal University, Garhwal.
- Dorji, D.R. (1975).** *A Study of Leadership Behaviour and its Correlates in the Secondary School of Panchmahal District.* Ph.D. Thesis. M.S. University, Baroda.
- Ezekel, N. (1966).** *Teacher Participation in School Administration in Greater Bombay.* Ph.D. Thesis, Bombay University, Bombay.
- Fatima, K. (2002).** *Job Satisfaction among Secondary School Teachers.* Ph.D. Thesis, Dr. B.A.M.U., Aurangabad.
- Ganesan, S (1997).** *Teacher Education through Formal and Distance Education in the University of Madras.* Ph.D. Thesis, University of Madras, Chennai.
- Goswami, D.H. (1980).** *University Administration in North East India.* Ph.D. Thesis, Gauhati University, Gauhati.
- Gregory, B.A. (1986).** *The Effects of Situational Leadership on Organizational Health and Academic Achievement.* Ph D. Thesis, Georgia State University.
- Jain, P.D. (1991).** *A Depth Study into the Functioning of Andhra Pradesh Open University (APOU).* Ph.D. Thesis, Osmania University, Hyderabad.
- Kalai, J.M. (2006).** *A Study of Educational Management Practices in Secondary Schools and their Implications for In-Service Training of Head Teachers: A Survey of Kitui and Machakos Districts, Kenya.* Ph.D. Thesis, University of Pune, Pune.
- Kalpande, V.A. (1990).** *A Study of the Problems of the Block Level Educational Administration in Maharashtra State Extension Officers*

- (education) in the Administration of Elementary Education. Ph.D. Thesis, Shivaji University, Kolhapur.
- Kapoor, B.K. (2001).** *Development and Validation of In-service Training Curriculum for Primary School Head Masters of Delhi.* Ph.D. Thesis, Kota Open University, Kota.
- Kaur, S. (1981).** *A Critical Study of the Organization of Educational Administration and Finance in the State of Uttar Pradesh.* Ph.D. Thesis, Avadh University, Faizabad.
- Khadanga, D. (1986).** *Management of Educational System in Orissa during British Rule.* Ph.D. Thesis, Utkal University, Bhubaneswar.
- Khanolker, D. (1960).** *A Critical Study of Secondary School Organisation in India with special reference to Multipurpose Schools.* Ph.D. Thesis, Bombay University, Bombay.
- Khera, D.S. (1980).** *A Study of Organizational Climate and Educational Environment of Sainik Schools.* Ph.D. Thesis, Punjabi University, Patiala.
- Kowalski, T.J. (2008).** *Case Studies on Educational Administration.* Ph.D. Thesis, University of Dayton, Dayton, Ohio.
- Krishnamurthy, S (1965).** *A Critical Study of Reforms in Educational Administration introduced in Andhra Pradesh during 1956-66.* Ph.D. Thesis, M.S. University, Baroda.
- Kumari, Vijaya (2002).** *History and Problems of Teacher Education in Kerala.* Ph.D. Thesis, University of Kerala, Thiruvananthapuram.
- Maheswari, Uma J. (2005).** *Public Expenditure and its Efficacy on School Education -Tamil Nadu.* Ph.D. Thesis, University of Madras, Chennai.
- Mallaya, V. (1986).** *Teacher Training in Madhya Pradesh.* Ph.D. Thesis, Sagar University, Sagar.
- Mathur, S.S. (1959).** *Administrative Policies Governing Substitute Teachers Serving in Higher Secondary Schools in Major Cities of Uttar Pradesh.* Ph.D. Thesis, Agra University, Agra.
- Mc Eldowney, P. (1980).** *Colonial Administration and Social Developments in Middle India: the Central Provinces, 1861-1921.* Ph D. Thesis, University of Virginia.
- Mehendiratha, R.R. (1982).** *University Administration in India and U.S.A.- Comparative Study.* Ph.D. Thesis, Kurskushetra University, Kurskushetra.

- Mishra, D.N. (1981).** *A Critical Study of Educational Administration and Organization of Traditional Sanskrit Schools of Uttar Pradesh.* Ph. D. Thesis, Sampurnanand Sanskrit University, Varanasi.
- Misra, B.M. (1984).** *Educational Administration in Orissa.* D. Litt. in Education, Utkal University, Bhubaneswar.
- Misra, R. (1983).** *A Critical Study of Administration of Secondary Education In Rural Areas of Faizad Division.* Ph.D. Thesis, Avadh University, Faizabad.
- Mukherjee, L.K. (1951).** *Role of the State in the Organisation of Education in India.* Ph.D. Thesis, Lucknow University, Lucknow.
- Mohan, R. (2005).** *Leadership Style of Headmaster/Principal, Organizational Health and Academic Performance of Schools in Tamil Nadu.* Ph.D. Thesis, University of Madras, Chennai.
- Mohanty, B. (1988).** *A Study of the Pattern and Problems of Administration and Supervision of Primary Schools in Orissa.* Ph.D. Thesis, Gauhati University, Gauhati.
- Nair, Vijayakumar (2002).** *History and Problems of Teacher Education in Kerala.* Ph.D. Thesis, University of Kerala, Thiruvananthapuram.
- Nambiar, A.K.N. (1976).** *Administration of School Education in the State of Kerala.* Ph.D. Thesis, University of Kerala, Thiruvananthapuram.
- Natesan, R. (1986).** *Education and Social Change in Tamil Nadu (1900-1967).* Ph.D. Thesis, University of Madras, Chennai.
- Nayal, Rekha (2005).** *A Comparative Study of Knowledge of Leadership Qualities, Attitude and Functioning of the Principals of Government and Non-Government Upper Primary Schools of Agra District.* Ph.D. Thesis, Dr. B.R. Ambedkar University, Agra.
- Pani, Puspanjali (2004).** *Impact of Continuous and Comprehensive Evaluation at Primary Level in the State of Orissa.* Ph.D. Thesis, Utkal University, Bhubaneswar.
- Patel, C.K. (1980).** *A Critical Study of the Higher Secondary School Organization in Gujarath State with Special Reference to Vocational Education.* Ph.D. Thesis, Gujarath University, Ahemadabad.
- Pathak, S.P. (1986).** *An Evaluation Study of the Administrative and Organizational Pattern of In-service Education for Secondary School Personnel in India.* Ph.D. Thesis, Delhi University: Delhi.

- Pathrikar, A. and Rao, Gangadhara (2002).** *A Study of Educational Institutions in Aurangabad District managed by Maratha Community.* Ph.D. Thesis, Dr. B.A.M.U., Aurangabad.
- Pati, S. (1992).** *A Study of the Administrative and Supervisory Problems of Secondary School Headmasters of Cuttack-I Circle, Cuttack.* M.Phil. Thesis, Ravenshaw College, Cuttack.
- Peer, Mohammed K.P. (1996).** *Progress of Education in Madras City (1854-1947).* Ph.D. Thesis, University of Madras, Chennai.
- Pracha, R. (1985).** *Administrative Problems as perceived by Physical Education Administrators in Relation to their Relationship Behaviour in Thailand.* Ph.D. Thesis, Poona University, Poona.
- Ramachandran, R. (1966).** *A Study of the Problem of Administration and Organization of Training Schools in Kerala.* Unpublished M.Ed. Thesis, University of Kerala, Thiruvananthapuram.
- Rao, Ramachandra B.S. (2001).** *Development of an In-service Training Programme for Navodaya Vidyalaya Teachers in meeting Students' Emotional Needs.* Ph.D. Thesis, M.S. University, Baroda.
- Saenghirun, P. (1983).** *Educational Administration of Adult Education in Thailand.* Ph.D. Thesis, S.V. University, Tirupathi.
- Sahoo, S. (2002).** *Forecasting Needs for In-Service Education of Primary School Teachers of Tribal Districts of Orissa Towards 2010 A.D.* Ph.D. Thesis, Kota Open University, Kota.
- Samantaray, J. (2002).** *Professional Responsibilities Among Senior Secondary School Teachers in Relation to Instructional Management Behaviour and School Organisational Climate.* Ph.D. Thesis, Kurukshetra University, Kurukshetra.
- Sargurudoss, M. (1961).** *Educational Policy in the Madras Presidency (1800-1900 A.D.).* Ph.D. Thesis., Madras University, Chennai.
- Shah, M.R. (1951).** *Some Problems of Educational Administration in India.* Ph.D. Thesis, Bombay University, Bombay.
- Sharma, B.D. (1964).** *A New Concept of Educational Administration in India.* Ph.D. Thesis, Vikram University, Ujjain.
- Sharma, M. (1982).** *Progress and Problems of Teacher Education in India.* Ph.D. Thesis, Patna University, Patna.
- Sharma, O.P. (1987).** *A comparative Study of the Administration of Board of School Education in India.* Ph.D. Thesis, H.P. University, Shimla.

- Sharma, R.C. (1971).** *Investigation of the Professional Needs of Teacher Educators of Undergraduate Training Institutions of Madhya Pradesh and Maharashtra.* Ph.D. Thesis, M.S. University, Baroda
- Sharma, S. (2003).** *Study of Management of Human Resources Development of Teachers in Secondary and Higher Secondary Schools of Rajasthan.* Ph.D. Thesis, V.M. Open University, Kota.
- Sheth, K.V. (1973).** *A Critical Study of Development Organization, Programming and Finances of College Education at Graduate Level at Gujarat State.* Ph.D. Thesis, M.S. University, Baroda.
- Sindhi, H.C. (1984).** *A Study of College Administration in Punjab.* Ph.D. Thesis, GND University, Amritsar.
- Singh, H.C. (1988).** *A Study of Organizational Climate: Its Relationship with Teacher's Self Concept, Attitude and Some other Characteristics of the Colleges of Gorakhpur University.* Ph.D. Thesis, University of Gorakhpur, Gora.
- Singh, R.R. (1964).** *The Growth and Evaluation of Educational Administration in Bihar State.* Ph.D. Thesis, Patna University, Patna.
- Singh, R.N. (1975).** *A Critical Study During Post Independence Years With Special Reference to Functional and Educational Aspects of the Development of School Education in Himachal Pradesh.* Ph.D. Thesis, H.P. University, Shimla.
- Solanki, K.N. (1992).** *A Study of the Relationship between Educational Management and Organizational Climate of the Secondary Schools of Saurashtra Region.* Ph.D. Thesis, Saurashtra University, Rajkot.
- Sriratna, N. (1983).** *The Problems of Educational Administration Concerned with Community and Learning Environment of Primary Schools in the Educational Region –Thailand.* Ph.D. Thesis, Gujarath University, Ahmedabad.
- Taj, Haseen (1992).** *Social Psychological and Situational Correlates of Administrative Behaviour of Secondary School Heads.* Ph.D. Thesis, Banglore University, Bangalore.
- Varghese, T. (1986).** *A Critical Study of Personnel Development Programme.* Ph.D. Thesis, M.S. University, Baroda.
- Vartak, R.M. (1971).** *A Critical Study of Education Organisation, Administration and Problems, under the Maharashtra Zilla Parishads and Pantchayat Samities Act of 1961, in the State of Maharashtra.* Ph.D. Thesis, S.N.D.T. University, Bombay.



- Vasanthi, R. (2003).** *Tamil Nadu Primary Education Policy: A Study with Special Reference to Universalization of Primary Education.* Ph.D. Thesis, University of Madras, Chennai.
- Vats, I.P. (1972).** *Leadership Roles in Educational Administration in Punjab.* Ph.D. Thesis, Punjabi University, Patiala.
- Vyas, J.P. (1963).** *Central Government's Role in Indian Education - 1813-1961 (An Educational and Historical Assessment).* Ph.D. Thesis, Sagar University, Sagar.
- Yasin, M.M. (1987).** *Assessing Managerial, Technical, and Academic Motivation in the Arab Culture: The Relationships of Needs for Achievement, Affiliation and Power with Effectiveness.* Ph.D. Thesis, Clemson University, Clemson.

#### UNPUBLISHED MNUSCRIPTS

- Achuthan, P.K. (2004).** *Critical Analysis of Practice of School Inspection by District Educational Officers in Kerala with Special Reference to Alleppey District.* New Delhi: NIEPA.
- Chandrika, K. (2002).** *Planning and Management of Inclusive Schools in Thiruvananthapuram District of Kerala.* New Delhi: NIEPA.
- Das, R.C. (1979).** *Administration of Elementary Education in Relation to the Programme of Universalization.* Assam: SIE.
- Jagannadhan, D. (1986).** *The Take Over of Panchayat School by Government of Tamil Nadu and its Impact.* New Delhi: NIEPA.
- Jayaraman, S. (1995).** *Study on the Availability of ET Materials and Utilization in Teaching of Science in Secondary School of Chengalppattu M.G.R. District of Tamil Nadu.* New Delhi: NIEPA.
- Kamalamaney, Amma A.A. (1997).** *Study to Examine the Impact of In-service Training Programme for Headmaster of Primary Schools in Alappuzha District, Kerala.* New Delhi: NIEPA.
- Kapoor, M.M. and Premi, K. (1988).** *Development and Maintenance of Educational Services: A Study of Norms. An Independent Study.* New Delhi: NIEPA.
- Kutty, Krishnan K. (1995).** *Study on the Effectiveness of Inspections and Supervision at High School Level in Mavelikkara Educational District, Kerala.* New Delhi: NIEPA.
- Mittal, S.C. (1990).** *An Intensive Study of Secondary and Higher Secondary School Buildings in the States of Himachal Pradesh, Karnataka,*

- Madhya Pradesh and Orissa on Sample basis. Independent Study.* New Delhi: NCERT.
- NIEPA. (1979).** *A study of Administration of Elementary Education in Relation to the Programme of Universalization of Elementary Education in Andhra Pradesh.* New Delhi: NIEPA.
- NIEPA. (1979).** *A Study of Administration of Elementary Education in Relation to the Programme of universalization of Elementary Educations in Assam.* New Delhi: NIEPA.
- NIEPA. (1979).** *A Study of the Administration of Elementary Education in Relation to universalization of Elementary Educations in Rajasthan.* New Delhi: NIEPA.
- NIEPA. (1979).** *A Study of the Administration of Elementary Education in Relation to the universalization of Elementary Educations in West Bangal.* New Delhi: NIEPA.
- NIEPA. (1979).** *A Study of the Administration of Elementary Education in Relation to the Programme of Universalization of Elementary Education in Bihar.* New Delhi: NIEPA.
- NIEPA. (1979).** *A Study of the Administration of Elementary Education in Relation to the Programme of universalization of Elementary Education in Jammu and Kashmir.* New Delhi: NIEPA.
- NIEPA. (1979).** *A Study of the Administration of Elementary Education in Relation to the Programme of universalization of Elementary Educations in Madhya Pradesh.* New Delhi: NIEPA.
- NIEPA. (1979).** *A Study of the Administration of Elementary Education in Relation to the Universalization of Elementary Educations in Orissa.* New Delhi: NIEPA.
- NIEPA. (1979).** *A Study of the Administration of Elementary Education in Relation to the Universalization of Elementary Educations in Uttar Pradesh.* New Delhi: NIEPA.
- Palaniyandi, R. (1990).** *Leadership style and School Effectiveness: A Study of the Heads of Higher Secondary Institutions of Velloor Educational District.* New Delhi: NIEPA.
- Panneer, Selvam S.K. (2002).** *Impacts of DIET's In-service Training to Primary Teachers on Classroom Processes.* New Delhi: NIEPA.
- Parvathy, V. (1995).** *Impact of In-service Training Programme in Planning and Management among Primary School Headmasters of Palakkad District, Kerala.* New Delhi: NIEPA.

**Puskaran, P.K. (1985).** *An Investigation into the Problem of Introducing Planning in Trichur Educational District, Kerala.* New Delhi: NIEPA.

**Ravi, T. (1996).** *Identification of Training Needs of Primary School Headmasters in the Context of District Primary Education Programme (DPEP) of Kasargode District, Kerala.* New Delhi: NIEPA.

**Unnikrishnan, K.M. (1995).** *A Study of Planning and Management Practices of Selected Primary School in the District of Kasargod, Kerala.* New Delhi: NIEPA.

#### WEBSITES

**Bassey, M. (1991).** *Creating Education Through Research.* Presidential address to the British Educational Research Association, Retrived, November 30, 2010 from [http://www.bera.ac.uk/files/2008/08/Bassey\\_1991.pdf](http://www.bera.ac.uk/files/2008/08/Bassey_1991.pdf).

**Martin, T.R. (2003).** Democracy in the Politics of Aristotle. Retrieved, April 28, 2010 from [www.stoa.org/projects/demos/article\\_aristotle\\_democracy](http://www.stoa.org/projects/demos/article_aristotle_democracy).

**Standing, E. M. (1998).** Maria Montessori: Her Life and Work. Retrieved, July 28, 2010 from <http://www.penguinputnam.com>.

**Stanford Encyclopaedia of Philosophy.** (2008). Retrieved, July 20, 2010 from <http://plato.stanford.edu>.

