CHAPTER – II
REVIEW OF RELATED LITERATURE

2.1 Introduction

The purpose of this literature review was to convey to the reader what knowledge and ideas have been established on a topic and what are the strengths and weaknesses. The literature review allowed the reader to be brought up to data regarding the state of research in the field and familiarizes the reader with any contrasting perspectives and viewpoints on the topic. The survey of related literature is an integral part of any research study and time spent in such an endeavor results in careful planning and meticulous execution of the research. The review of literature enables the researcher to perceive the gap, avoid the duplication of work, scrutinize the methodology already used, co-ordinate the study with others, get the right direction, view the problem from as many angles as possible and prepare the framework. For the present research, the investigator had made extensive review of research reports, articles of the journals, dissertations and theses, and survey documents. The investigator has consolidated those reviews related to the present investigation in this chapter. Studies done related to In-service Teacher in Education both in India and abroad were reported as follows:

2.2 Purpose of Review

The review of related literature is an important step in research. Often the insights gained through the review save the research worker as much
time in conducting his project as the review itself required. Although the general purpose of the review is to help the researcher to develop a through understanding and insight into previous work and the trends that have emerged. Borg and Gall (1983) mentioned that the review can also help in researching a number of important specific goals namely, delimiting the research problem, seeking new approaches, avoiding sterile approaches, insights into methods and sampling.

Review of related literature is a crucial step, which invariably minimizes the risk of dead ends, rejected topics, rejected studies, wasted effort, and trial and error activity oriented towards approaches already discarded by previous investigators. Practically all human knowledge can be found in books and libraries. Unlike other animals that must start a new with each generation man builds upon the accumulated and recorded knowledge of the past. (Best 1999) According to Mouley (1984), review of literature also provides comparatives data on the basis of which evaluate and interpret the significance of one's findings. In addition it contributes to the scholarship of the investigator.

Having understood the importance of review of related literature a systematic procedure was followed by the investigator in reviewing the related literature for the present study. The investigator listed key works related to the topic and used preliminary sources such as research in education, current index to journals in education, psychological abstracts and educational index to locate sources of information. After locating the sources the investigator carefully included in this chapter the various literature and research studies related to the present study.
2.3 Importance of Review of Related Studies

Aggarwal (1975) has listed eleven important reasons for which review of related studies should be made.

- The review of literature is the basis of most of the research projects in the physical sciences, natural sciences and humanities.
- A review of related literature given the scholar an understanding of the precious work that has been done.
- The results of the review actually provide the date used in the research.
- It enables the researcher to know the means of getting to the frontier in the field of our problem. Until we have learnt what others have done and what still remains to be done in our area, we cannot develop a research design that will contribute to furthering knowledge in our field.
- A review of literature would develop the insight of the investigator. The information thus, gained will save the researcher's much time.
- The importance of the review is quite obvious in delimiting the research problem and in defining it better.
- The review of literature will give the student the insight he/she needs to convert his/her tentative research problem to a specific and concise one.
- A review of literature can help the research worker in making him alert to research possibilities that have been overlooked.
- In the process of reviewing the literature the student is on the alert for finding out research approaches in his area that have proved to be sterile.
- The review of literature provides with an opportunity of gaining insight
into the methods, measures; subjects and approaches employed by other research workers, this in turn will lead to significant improvement of research design.

- A Careful consideration of the chapter entitled 'Recommendations for further research' in various research studies guides us regarding the suitability of a problem and in assisting the researcher delimiting the research problems.

In the words of Brog (1965), "The literature in any field forms the foundation upon which all future work will be built". The author further observes that if we fail to build this foundation of knowledge provided by the review of literature, our work is likely to be shallow and native, and will often be duplicate work that has already been done better by someone else.

Good had said, "The keys to the vast storehouse of published literature may open doors to sources of significant problems and explanatory hypothesis, and provide helpful orientation for definition of the problem, background for selection of procedure, and comparative data of interpretation of results. In order to be truly creative and original, one must read extensively and critically as stimulus to think". This chapter contains the review of related literature, was broadly categorized into two categories. Each category consists of Indian and foreign studies.

2.4 Studies in India

All India Sample Survey for estimation of Dropout Rates (2009)

The study aims at providing estimates of grade-wise repetition and dropout rates, cohort dropout rate, completion rate as well as transition rate
from primary to upper primary based on the data of 2006-07 and 2007-08. This study was also expected to provide information on other indicators such as rates of transfer between schools and mainstreaming of children from Alternative and Innovative Education Centres to Schools. The study was conducted in all the 21 major states of the country. The study was commissioned to Development and Research Services. The sampling design was prepared centrally and a sample of schools in all 21 states was drawn, tools were developed, field tested and finalized at national level. In all these activities RESU was actively involved and provided advice and help to the agency at every stage.

Data was collected from a sample of 8,016 schools with total enrolment in these schools being 10,69,417. Data was collected on grade wise enrolment and retention of students for two years 2006-07 & 2007-08. Information on school leavers as well as of students remaining absent for over 15 days, was obtained from each school and the homes of these children were visited to verify whether these children were still in the educational system or had dropped out. In all 47,095 households of school leavers and 5,386 households of students who were absent for over 15 days were visited. The percentage of students who were absent for over 15 days was only 0.51 %. The study estimated percentage of school leavers as well as percentage of dropouts amongst school leavers (2007-08) on the bias of visits to the homes of school leavers.

Cohort drop out rate was also computed from the data on school leavers for the years of 2006-07 & 2007-08 by the Reconstructed Cohort method. However, since the dropout rates were found to be very low in some
states, a committee of experts was appointed to examine the soundness of the methodology and veracity of the findings. The committee found the methodology adopted for the study quite satisfactory but in view of the large difference between dropout rates given by this study and the dropout rates from other sources of data, recommended that a repeat survey in a sub-sample should be conducted for validation of the findings of this survey. The repeat survey is proposed to be conducted in 2010-11.

**All India Sample Survey to estimate number of Out of school children (2009)**

A major sample survey was conducted in 2009 for assessing the number of out of school children in the age group 6 to below 14 in the country. Research, Evaluation & Studies unit of Technical Support Group of Ed.CIL (India) Ltd for Sarva Shiksha Abhiyan provided technical guidance and helped in selection of samples of villages and urban blocks and in estimation of the percentage and number of out-of-school children. The survey was conducted by Social & Rural Research Institute -IMRB International (SRI-IMRB) in all the states and Union territories covering rural and urban areas of 588 districts. Data were collected from a sample of 99,226 households in 3234 villages and 1856 urban blocks covering all the districts. The findings of the survey indicated that the country had about 19.1 crores children in the age group 6-13 (i.e. below 14 years), of whom 4.3% children were out of school, in 2005 this figure was 6.9% . Amongst the out of school children, 3.2% children had never attended school and 1.1% were dropouts. Among boys 3.9% children were out of school and among girls 4.6% children were out of school.
Table – 2.1: Sample survey of Out of school children

<table>
<thead>
<tr>
<th>Out of School Children (%)</th>
<th>2005</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (6-13 Years)</td>
<td>6.9</td>
<td>4.3</td>
</tr>
<tr>
<td>Dropouts</td>
<td>2.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Never Attended</td>
<td>4.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Age group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-10 Years</td>
<td>6.1</td>
<td>3.7</td>
</tr>
<tr>
<td>11-13 Years</td>
<td>8.6</td>
<td>5.2</td>
</tr>
<tr>
<td>By area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>7.8</td>
<td>4.5</td>
</tr>
<tr>
<td>Urban</td>
<td>4.6</td>
<td>3.2</td>
</tr>
<tr>
<td>By gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>6.2</td>
<td>3.9</td>
</tr>
<tr>
<td>Female</td>
<td>7.9</td>
<td>4.7</td>
</tr>
<tr>
<td>By Social Groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>8.2</td>
<td>6.0</td>
</tr>
<tr>
<td>ST</td>
<td>9.5</td>
<td>5.6</td>
</tr>
<tr>
<td>Muslim</td>
<td>10.0</td>
<td>7.7</td>
</tr>
<tr>
<td>OBC+ others</td>
<td>5.6</td>
<td>2.7</td>
</tr>
<tr>
<td>Percentage of disabled children amongst Out of school children (6-13 years)</td>
<td>38.1</td>
<td>34.8</td>
</tr>
</tbody>
</table>

Amongst the states which had relatively high percentage of Out of school children are Arunachal Pradesh (10.6%), Delhi (5.0%), Orissa (7.0%) Rajasthan (8.4%), Uttarakhand (7.6%) and West Bengal (5.25%). The above Table 2.1 analyses the comparative picture of results obtained from the 2005 and 2009 surveys for estimating percentage of Out of school children. The report of the survey was published by Ed.CIL in 2010.

Reasons for large decline in enrolment between class I and class II (2009)

The main objective of the study was to find out the reasons for large decline in enrolment from class I of one year to class II of the following
year. It was conducted in samples of 100 primary and upper primary schools in four states - West Bengal, Bihar, Assam & Meghalaya, in which the decline was sharp. Child tracking method was used to find out where the children admitted in class I in a given year are in the following year. It was conducted with the help of State Councils of Educational Research & Training, District Institutes of Education & Training, Block Resource Centres and Cluster resources Centres. While SCERTs prepared state reports, a synthesis report prepared by RESU covering all the four states. This report was published by Ed.CIL in 2009.

**Main findings:** The following table shows the percentage decline in enrolment between class I & class II and reasons for decline in enrolment in the year 2005 & 2006 as per school records. The most common reason is that many children enrolled in class I repeat the class and do not get promoted to the next class in the following year.

**Table-2.2: Decline (%) in enrolment between class I & class II and reasons for Decline in enrolment**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of pupils in class I</td>
<td>5568</td>
<td>4892</td>
<td>15322</td>
<td>14647</td>
<td>2964</td>
<td>3023</td>
<td>10925</td>
<td>10991</td>
</tr>
<tr>
<td>Decline %</td>
<td>15.4</td>
<td>15.0</td>
<td>34.5</td>
<td>31.9</td>
<td>22.9</td>
<td>24.8</td>
<td>36.4</td>
<td>37.3</td>
</tr>
<tr>
<td>Repeater (%)</td>
<td>8.4</td>
<td>8.2</td>
<td>27.3</td>
<td>27.0</td>
<td>14.4</td>
<td>14.2</td>
<td>28.2</td>
<td>28.3</td>
</tr>
<tr>
<td>Joined other Govt. schools (%)</td>
<td>1.1</td>
<td>1.3</td>
<td>1.0</td>
<td>1.3</td>
<td>1.4</td>
<td>1.6</td>
<td>1.9</td>
<td>2.4</td>
</tr>
<tr>
<td>Joined Pvt. Schools (%)</td>
<td>0.7</td>
<td>0.9</td>
<td>2.0</td>
<td>1.5</td>
<td>3.6</td>
<td>5.5</td>
<td>0.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Discontinued studies (%)</td>
<td>1.9</td>
<td>1.8</td>
<td>1.9</td>
<td>0.9</td>
<td>2.1</td>
<td>1.9</td>
<td>3.4</td>
<td>3.5</td>
</tr>
<tr>
<td>No response (%)</td>
<td>3.3</td>
<td>2.8</td>
<td>2.3</td>
<td>1.2</td>
<td>1.4</td>
<td>1.6</td>
<td>2.1</td>
<td>2.1</td>
</tr>
</tbody>
</table>
The study reported that percentage of repeaters was higher among children admitted late. Table 2.2 shows that 3% to 4% children of grade I left school in Assam, Bihar & West Bengal, whereas this percentage was higher in Meghalaya (9.8%). The most common reasons for leaving the school and shifting to another school were (i) the other school was nearer home and (ii) another sibling was already studying in the other new school. Unsatisfactory teaching and inadequate facilities in schools were also significant reasons in some cases.

Table 2.3: Reasons for leaving school after class I %

<table>
<thead>
<tr>
<th>Reasons for leaving schools</th>
<th>Assam</th>
<th>Bihar</th>
<th>Meghalaya</th>
<th>West Bengal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student who left school (%)</td>
<td>3.4</td>
<td>3.5</td>
<td>9.8</td>
<td>3.1</td>
</tr>
<tr>
<td>New school was nearer home</td>
<td>25.0</td>
<td>16.2</td>
<td>39.2</td>
<td>36.0</td>
</tr>
<tr>
<td>Sibling already studying in the new school</td>
<td>23.1</td>
<td>29.7</td>
<td>24</td>
<td>7.1</td>
</tr>
<tr>
<td>Unsatisfactory teaching in school</td>
<td>13.5</td>
<td>16.2</td>
<td>6.1</td>
<td>14.9</td>
</tr>
<tr>
<td>Inadequate facilities in school</td>
<td>7.7</td>
<td>18.5</td>
<td>8.8</td>
<td>13.7</td>
</tr>
<tr>
<td>No response</td>
<td>30.7</td>
<td>22.4</td>
<td>21.9</td>
<td>28.3</td>
</tr>
</tbody>
</table>

The purpose of this study was to make an assessment of community and school management bodies in management and supervision of schools and to find out to what extent they have achieved their objectives and what kind of problems or difficulties they have been experiencing in their work. The study was undertaken in Bihar, Delhi, Haryana, Jharkhand, Kerala, Karnataka, Madhya Pradesh, Maharashtra, Mizoram, Nagaland, Punjab, Rajasthan, Uttarakhand and West Bengal. While National University of
Educational Planning and Administration coordinated this study, RESU was actively involved in developing the research design, tools and data analysis plan. For each state an institution was selected to conduct the study within the state. State reports were prepared by the concerned agencies and a draft synthesis report was prepared at national level.

S. Eswaran & Ajit Singh. A study of Effectiveness of In-service Education of Teachers (2008)

Under Sarva Shiksha Abhiyan, significant inputs are being made to achieve the Education for all. One of these inputs is the in-service education of teachers on a continuing basis every year. The main objective of this study was to determine the effectiveness of in-service education being imparted to primary teachers and to study the functioning of Cluster and Block Resource Centres. The dropout and school completion rate at the primary level were also studied. The study was conducted in two states, Bihar and Tamil Nadu. In each of these states, one district was selected. Two blocks were selected in each district. Further in each block, two clusters were selected. Ten per cent of schools in each of the selected blocks were covered in the study. The main findings of the study are the following:

- The students dropout rate at the primary level in Bihar is very high. It is 52.9 per cent. The dropout among girls is slightly higher than those of boys. In the state of Tamil Nadu, the drop out rate is very low i.e. 1.13 per cent.
- The students dropout rate at the primary level in Bihar is very high. It is 52.9 per cent. The dropout among girls is slightly higher than those of
boys. In the state of Tamil Nadu, the drop out rate is very low i.e. 1.13 per cent.

- Primary school completion rate is quite low in the state of Bihar. It is about 42 per cent. It is quite high i.e. about 84 per cent in the state of Tamil Nadu.

- In the state of Tamil Nadu, nearly 72 per cent teachers reported that the training content of the training programmes they underwent was relevant to their professional learning needs. The remaining teachers (28%) expressed that it was not relevant to their professional learning needs. Of the teachers who perceived the training content relevant to their needs, nearly 94 per cent expressed that it was relevant to some extent. Only six per cent expressed that it was relevant to a great extent. Further only 61 per cent of the teachers expressed that training content can be implemented in the classroom. Of these, nearly 93 per cent further expressed that it can be implemented to some extent only.

- Teachers from Tamilnadu by and large further reported that no substitute teacher was posted against their position in the school during the period of their in-service training. As a consequence, learning of their students was affected adversely. They further reported that their image among parents / guardians of their students also declines because of their absence from the school due to their in-service training.

- Only 2.9 per cent teachers from Tamil Nadu reported that their teaching process improved to a large extent as a result of their in-service training under SSA. Nearly 73 per cent reported that it improved to some extent only. The remaining teachers (23.7%) reported that they do not perceive any improvement in their teaching process as a result of their
in-service training.

- Nearly 74 per cent teachers reported that transactional approaches followed by facilitators/resource persons were appropriate to some extent only. About ten per cent reported that the approaches were appropriate to a great/large extent.
- Seventy five per cent teachers from Bihar reported that the training content was relevant to their professional learning needs. Further 23.7 per cent teachers reported that the training content can be implemented in the classroom to a great extent. Nearly 49 teachers reported that it can be implemented to some extent only.
- Nearly 24 per cent teachers from Bihar reported that training received by them was useful to them to large extent. About 58 per cent teachers reported that it was useful to some extent only. The rest (18.4 per cent) reported that it was not useful at all.
- Only 28 per cent teachers reported that the transactional approaches followed by resource persons/facilitators were appropriate to a great/large extent. More than 60 percent reported they were appropriate to some extent only.
- In both the states of Bihar and Tamilnadu, in-service training programmes for teachers are designed by the state level agency/District Institute of Education and Training. BRCs/CRCs do not have any role in this regard. As a consequence, local specific needs of teachers are not addressed appropriately.
- In both the states, BRCs/CRCs have not conducted any study to determine the impact of in-service education on teachers classroom processes.

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- BRCS are ill-staffed.
- Teachers are imparted training during working days. This affects adversely learning of students. This is because their learning hours are reduced. State authorities should review the duration of training of teachers in a year and reduce it suitably as desired by teachers.
- State authorities should examine the possibilities of providing school based training to teachers as desired by them.
- Training programmes should lay a great deal of emphasis on developing among teachers skills such as preparing working models and puppets.

**Study on effectiveness of Block Resource Centres and Cluster Resource Centres in providing academic support and supervision to elementary schools (2008)**

The purpose of the study was to find out how effective the Block Resource Centres and Cluster Resource Centres are, in discharging their designated role and responsibility to improve and maintain academic performance in primary and upper primary schools. The study is expected to provide insights to Ministry of Human Resources Development and State Governments on how these centres are functioning and what more needs to be done to make them effective for delivering the services expected of them. The study was conducted in 14 states (Assam, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Kerala, Madhya Pradesh, Mizoram, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal).
Seven agencies including 3 Indian Institutes of Management were selected to conduct the study in different states. Data analysis plan developed at RESU was discussed with the agencies. Final analysis plan was supplied to all the agencies. Data analysis plan was prepared by RESU. Draft reports of the 14 states were received. Comments were sent on the Draft reports. Final state reports were received after necessary modification from IIM, Bangalore (Karnataka and Kerala); NCDS, Bhubaneshwar (Orissa and West Bengal), IIM, Lucknow (Uttar Pradesh); SPRI, Jaipur (Madhya Pradesh, Rajasthan and Himachal Pradesh), XLRI, Jamshedpur (Jharkhand and Haryana); NIAR, Mussorie (Jammu & Kashmir and Punjab) and IIM, Calcutta (Assam and Mizoram). S. Nayana Tara of IIM, Bangalore prepared a synthesis report but excluded Assam and Mizoram as the reports of these two states were submitted late by IIM, Calcutta. The synthesis report was, however, revised later to include the findings for Assam and Mizoram. A presentation on the study was made at MHRD and also at the 10th JRM. The synthesis report was published by EdCIL in 2009.

Main findings: The academic structures BRC and CRC, set up for SSA are discharging their duties and responsibilities as defined in the framework for implementation of SSA. The core structures of SSA at the district, block and sub-block levels were generally well established for administrative purposes. Most of the states under study have retained the generic nomenclatures of positions at the district and block levels. However, it was noted that in West Bengal and Haryana, there were no regular BRPs and some experienced teachers were deployed during training programmes. In the case of Karnataka, a post of Cluster Assistant Educational Officer was created to
off-load some administrative tasks of BEO. The views of District Project Coordinators were that the BRCS were overloaded with administrative work, had inadequate infrastructure and were burdened with too many training programmes. They had insufficient official power and suffered from lack of recognition for good work. Also lack of transport facilities affected the performance of BRC and CRC functionaries. Some of the perceived problems at the CRC level included insufficient capacity building of CRCCs, lack of job knowledge, non-acceptance of teachers to adopt innovative teaching methods and of CRCCs themselves by teachers.

SSA is envisaged as a decentralized programme but in most cases the power vested with the BEOs undermined the BRCCs' position. By and large, BRCCs, BRPs and CRCCs were satisfied with regard to most of the aspects but some discontent was found in respect of physical infrastructure, existing emoluments and balancing between administrative and academic work. Training received by BRCCs, BRPs and CRCCs was inadequate both qualitatively and quantitatively. Training received by teachers appeared to be satisfactory quantitatively barring a few exceptions. A significant proportion of teachers appeared to be satisfied with training effectiveness across all the states, though there were some areas which reportedly needed to be addressed. Areas in which training was relatively less effective or deficient according to the respondents included less focus on needs of CWSN and multigrade teaching methods. Training received by VEC members was woefully inadequate and practically defunct in many cases.

Some of the problems stated by CRCCs were infrequent visits by BRC personnel, difficulty in contacting the BRC personnel, poor leadership
displayed by them in addressing various issues, poor training capability and lack of emphasis on quality. A few critical areas of concern as reported by BRPs were: planning, monitoring and supervision, introducing need-based training programmes, developing infrastructure, addressing shortage of staff and need to introduce IT. The major educational issues at the cluster level included migration of parents, clamor for English medium schools, poor participation of VECs, inappropriate teaching methods, inadequate teaching staff, deployment of teachers for non-teaching activities and prevalence of child labour. Heads of schools stated that periodic review and planning of academic activities, more visits by BRC/CRC functionaries and frequent training activities would improve school functioning. They also emphasized the need for providing additional nutrients to students in MDM, generating awareness among community members and good school infrastructure. VEC forms the weakest link in the organizational structure of SSA in all the states covered. Training of VEC members was a neglected area. VEC members suggested that frequent visits by BRC functionaries to interact with them, guide them regularly on different issues and take prompt action on complaints lodged by the VEC would improve the situation.

**Time-on-task study of students (2008)**

The study aimed at finding out how the students spend their time in school and how much of their time is spent on different types of learning activities in the classroom. The study provides to estimate of the average time spent by them on broad patterns of curricular, co-curricular and other activities inside and outside the class-room. The study was conducted in Assam, Haryana, Karnataka, Orissa and Maharashtra state with the help of
State Councils of Educational Research & Training. Development of tools and sampling plan was undertaken centrally. Lecturers of District Institutes of Education & Training worked as observers in classrooms and helped in collection of the data. They were given training of 4 to 5 days in observation of classes and recorded their observations. Classes of grades II, IV and VI were observed for the study. The sample consists of 100 schools in each state.

Teachers' and student's activities in the class were observed by an observer using a modified version of classroom observation method developed by Jane A. Stallings. For this purpose language and mathematics class of grade II, language, mathematics and EVS of grade IV and Language, Mathematics, Science and Social Studies of grade VI were observed. Each class of 30 minutes duration was split into 10 equal parts each of three minutes duration. The first minute of the three minutes were used for observing students' and teachers' activities and the remaining two minutes were used for recording the observation. SCERTs sent the data on CD and data analysis was done centrally by RESU. Data analysis results were sent for report writing to SCERTs of the 5 states. A synthesis report prepared by RESU on the basis of data analysis done at RESU was published by EdCIL in 2009.

Major findings: The 17 possible activities which teachers generally undertake in a classroom were broadly classified as i) students centric activities, ii) teacher centric activities, iii) supportive instructional activities, iv) class management and v) Off task activities. Similarly, 19 students' activities undertaken by students were also classified as (i) active learning
activity (ii) passive learning activity, (iii) mechanical learning activity, (iv) class management, (v) being off task. Less than one third (an average of 29%) of the teachers' time in classroom was spent on students' centric activity. It was 27.6% for grade II, 26.2% for grade IV and 30.8% for grade VI. Percentage of time spent by teachers' in classroom on teachers' centric activity for grades II, IV and VI was 53.3, 56.3 and 55.9% respectively. Percentage of time spent by teachers on supportive instructional activities was 14.1% in grade II, 13.6% in grade IV and 10.5% in grade VI. Percentage of time spent by teachers' on 'class management' activities and 'being off task' was 2.1% and 2.9% for grade II, 1.5% and 2.4% for grade IV, 1.5% and 2.1% for grade VI respectively.

Overall, students' time spent on active learning activities was about 25% of total students' time. Students' time spent on active learning gradually declined from 26.4% in grade II to 22.0% in grade VI. Of the total time of students' classroom activities, time spent on passive learning activities was 46.9% on an average. The average student-time spent on learning activities of mechanical type was 15.4% of total students' time. It was highest (20.4%) in Haryana and lowest (11.6%) in Maharashtra. Overall, the time of students spent on class management was about 5%. It was lowest (2.4%) in Assam and highest (6.5%) in Haryana. Students' time spent on class management activities increased marginally from 4.8% in grade II to 5.3% in grade VI. The average time when students were off-task was 7% of total student-time. It was least (6.5%) in Haryana and highest (10.4%) in Karnataka. Off-task activities of students also indicate the same pattern as that of class
management, i.e. maximum time was in grade II (9.1%) which declined to (6.3%) in grade VI.

**Evaluation of National Programme for girls at elementary level (NPEGEL) Gender Unit TSG- Ed.CIL, (2008)**

The study was undertaken in 12 states of Assam, Chhattisgarh, Haryana, Jammu & Kashmir, Maharashtra, Manipur, Meghalaya, Mizoram, Punjab, Tripura, Uttarakhand and West Bengal to assess whether the objectives of the NPEGEL scheme are being met in educationally backward blocks where the scheme had been operationalised. Evaluation was conducted by six teams of 2 members each. Each team visited 2 states. Data was collected through observation, discussion with stakeholders and study of related documents. After the field visits the entire team met to discuss the findings and developed a national synthesis report based on the state reports.

**Major findings:** The basic purpose of this scheme does not seem to have been met in the states. But evidence of planning with a detailed annual calendar of activities developed at block level for activities around the cluster schools, was visible in Chhattisgarh. In some states the infrastructure development is of good quality – the MCS room and toilets well constructed with the requisite equipment being in place. While the infrastructure was there, its proper use was not being made in some cases.

The library books and TLM had been provided in the majority of states, but usage is a critical factor. The use of library and supplementary reading material in classroom interactions was not yet being made. Under the NPEGEL scheme sports events, symposiums, debates and cultural
programmes were carried out at zone, district, block, and even cluster level in 4 states. These competitions instilled a sense of achievement and confidence in the girls. Provision of cycles has been quite popular and where (like in Tripura, Chhattisgarh) it is targeted towards girls who live more than 2 to 3 km away, in non-hill regions, it is also being perceived as an intervention to improve attendance. Cycling to school really improves the self confidence level of girls.

Vocational training inputs, despite being gender stereotypical, somewhat helped in improving retention of girls, parents, teachers, communities and girls themselves were very happy with them. In a couple of states like Jammu & Kashmir and Chhattisgarh remedial teaching and student evaluation for learning outcomes was carried out at block and cluster levels to raise the learning capacity of girls. Remedial teaching and private tuitions were fairly common as parents and girls are eager to do well in examinations once they are in school. In none of the states, the SSA state offices had established any formal linkage with Open School system, perhaps because of a lack of vision. This is a major lacuna in the scheme which needs to be addressed by all the states so that the efforts of the scheme are not in vain.

National Evaluation of Kasturba Gandhi Balika Vidyalaya scheme
Gender Unit TSG- Ed.CIL, (2008)

The second phase of the above study was undertaken in another 12: states Assam, Chhattisgarh, Haryana, Jammu & Kashmir, Maharashtra, Manipur, Meghalaya, Mizoram, Punjab, Tripura, Uttarakhand and West
Bengal. Evaluation was conducted by six teams of 2 members each. Each team visited 2 states. Data was collected through observation, discussion with stakeholders and study of related documents. After the field visits the entire team met to discuss the state findings and developed a national synthesis report based on the state reports.

**Major findings:** In the 12 states, only 67.7% of the approved KGBVs were operational. Reasons for shortfall ranged from difficult terrain, high cost of building (J & K) to delay in selection of NGO for running the KGBV. Majority of girls studying in KGBVs were ST (44%), SC (21%), OBC (19%), Muslims (8%) and from poor families (9%). In Meghalaya, management of KGBV was given to a missionary institution where only catholic girls were being enrolled, which is a violation of the guidelines. In Punjab and West Bengal, these Vidyalayas were being used as hostel facility for girls enrolled in regular schools. Most of the States especially Mizoram, Haryana, Maharashtra, Uttarakhand & Jammu & Kashmir, had not imparted training to KGBV teachers/ wardens. There was a need to impart training to sensitize the functionaries in all the states on gender issues. Presence of female co-ordinator at state/district level ensures sensitivity to various physical/medical needs of adolescent girls. Hygiene, sanitation and physical environment emerged as a serious issue in some of the KGBVs in Chhattisgarh and Maharashtra.
National Evaluation of Kasturba Gandhi Balika Vidyalaya scheme
Gender Unit TSG- Ed.CIL, (2007)

The major aim of the study was to assess whether the objectives of the KGBV scheme were being met in operationalised KGBV schools. The study was undertaken in 12 states of Andhra Pradesh, Arunachal Pradesh. Bihar, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Madhya Pradesh, Orissa, Rajasthan, Tamil Nadu & Uttar Pradesh. Evaluation was conducted by six teams of 2 members each. Each team visited 2 states. Data was collected through observation, discussion with stakeholders and study of related documents. After the field visits the entire team met to discuss the state findings and developed a national synthesis report based on the state reports.

**Major findings:** In all states, as new buildings were coming up at the time of evaluation, most KGBVs were in temporary places (rented or otherwise). In eight of the 12 States visited all the KGBVs sanctioned were functioning. In remaining States like Bihar (18), Jharkhand (19), Orissa (7) and Uttar Pradesh (27), KGBVs were yet to be set up.

KGBVs in most of the states had a high proportion of older girls who had dropped out. In States like Arunachal Pradesh, Bihar, Gujarat, Rajasthan and Uttar Pradesh never enrolled girls were also admitted in the KGBVs. Their proportion varied from 69% in Gujarat to 11% in Rajasthan. Across the States, girls in most of the KGBVs seemed to have settled down well, were happy and confident. By and large, the retention of girls was fairly good in most of the KGBVs visited.
Curriculum in many KGBVs was quite enriched. The teachers were not familiar with techniques for accelerated learning. There was need for a policy/guideline for the recruitment and training of KGBV teachers and some kind of forward planning for the teachers to motivate them. Many of the part-time teachers were young with a lot of potential.

In most KGBVs the local community seems to be playing an active / positive role. All the state governments have paid special attention to the security and safety of the students. In almost all the KGBVs, the real guardians were the cooks, helpers and in some they were wardens / part-time teachers. The teachers and all those involved in the management of the KGBVs showed a high level of commitment. Parents want KGBVs to be extended to class X. Some states like Andhra Pradesh have already extended the programme to class X.


The National Evaluation of civil works was carried out by Ed.CIL (India) Ltd. on behalf of Ministry of Human Resources Development, Govt. of India by engaging an independent agency. This study was conducted in selected eleven (11) states representing all the regions throughout the length and breadth of the country. The purpose of the study was to assess an overall performance of the states in terms of quality of works completed and in progress, problems faced by implementing bodies, responses of village/ward committees as regards to financial and technical support provided to them, implementation of child friendly elements and cost effective measures, provisions for children with special needs, addressing environment friendly
aspects etc. and hence to ascertain strengths, weaknesses of the concerned states along with suggestions/ recommendations for improvement.

**Major findings:** It was observed that generally in all states VECs plan to provide additional facility for school premises in consultation with State Project Director. Some training has been imparted to the VECs on the various aspects of construction, record keeping etc. New building have been placed in the compound of the old school building in most of the schools. VECs took interest in the SSA works and were actively involved with the development activities. All the material related to the building construction was being procured from the local market at the lowest available price with the combined efforts of the VEC and the head teachers of the school. Building construction work was being carried out as per the specifications prescribed in the building estimates. Construction activities in schools were implemented through the Village Education Committee; purchase record/vouchers or stock registered maintained at site by the head teacher. Site in–charge had powers to stop or amend the poor construction, if undertaken at site by the VECs. Electricity connections were there in the school building in all urban schools and some rural school in all States. VECs were involved in the yearly maintenance of the buildings in the school complex. In all states, building maintenance funds were not adequate for annual maintenance of the school complex. No special provisions were made to ensure the safety and security of the girl students. Teachers made students aware of the need to keep their school and surrounding clean and made efforts to develop a sense of belonging to the school amongst students.
In Gujarat, Bihar, Maharashtra and Uttar Pradesh, the SPD office has prepared various options of building for the VECs to enable them to select the best possible option for their site as per the site conditions and land availability etc; some building models or pictures of constructed buildings were available to be shown to the VECs for their better understanding. Building construction supervision was carried out by the authorized representatives in Gujarat, Maharashtra, Assam, Bihar, Andhra Pradesh and Tamil Nadu. In Gujarat, Chhattisgarh, Madhya Pradesh, Maharashtra, parts of Andhra Pradesh and Bihar some form of Third Party independent evaluation was being undertaken for the building construction and material in the state; some form of laboratory testing was also being carried out by the monitoring agencies in the State. Measurement book (MB) and other financial records were properly maintained, audited and kept in all states. Some form of cost effectiveness process was being implemented by the states to use locally available material for the construction activities in Gujarat, Jammu and Kashmir, Andhra Pradesh and Assam. The new constructed buildings were ventilated and lighted as observed during the field visits in all states. There was provision of compound walls in the school building in Gujarat and in urban schools of all states. Proper earthquake prevention techniques were being provided in the school buildings in Gujarat, Bihar, Uttar Pradesh, Assam and Chattisgarh.

In Tamil Nadu and Gujarat, schools took initiatives to develop and maintain provisions for Children with Special Need. In Gujarat, deviations in the basic planning and the construction activity were reported to the SPD for the sites where such activities took place, deferred maintenance was
carried out through contributions in kind and cash in villages and *Water harvesting technique* was also present in the school premises. Some form of fire fighting provisions in the school buildings were available in Maharashtra.

**Study of Teachers' absence in primary & upper primary schools (2006)**

The study was conducted in the state of Andhra Pradesh, Madhya Pradesh and Uttar Pradesh by covering 400 schools in each state. The study proposed to estimate teaching days lost due to teachers remaining absent from school and to ascertain the reasons for absence. Besides studying teachers' attendance from school records for the academic session 2005-06, teachers' attendance was observed during two unannounced visits to schools with a gap of 5 to 6 weeks between the two visits. Effect of teachers' absence on students' attendance and achievement, grade repetition and dropping out from school was also studied. The schedules for data collection were developed centrally and samples of schools were also drawn centrally by RESU. The study was conducted by three different agencies, one in each state, using common methodology and tools. An *abridged report* of the study based on the states' reports has been prepared and distributed. A synthesis report of the study was published by Ed.CIL in 2009.

**Major findings:** In the year 2005-06, on an average day the teachers not present in schools constituted 24% in Andhra Pradesh, 15.4% in Madhya Pradesh and 11.0% in Uttar Pradesh. These included 14.9%, 10.6% and 5.4% teachers respectively who were on legitimate leave in these states. Some were not present due to being on official duty elsewhere or on
training. The percentage of teachers who were absent without intimation was only between 2.3% to 2.6%. Absence rate for teachers was almost the same for male and female teachers. Also the absence rate of teachers in rural and urban schools and teachers belonging to different social groups (SC, ST etc.) did not differ much. Twenty four predictor variables plus teachers' absence rate were used to study their relationship with language and mathematics achievement across in class V and class VII/VIII. The regression analysis indicated that teacher' absence rate was not significantly related with students' achievement either subject in class V in the case of each of the three states. Students' language achievement scores for class VII/VIII also failed to confirm the said relationship. However, Mathematics achievement for class VII/VIII did provide statistically significant contribution of teachers' absence rate but that too is not substantial.

**Study of Students' attendance in primary and upper primary schools (2006)**

The study was conducted in 20 major states including Delhi. The sample size in each state varied between 300 and 400 schools. The attendance of students was separately estimated for different groups of students from school records as well as head counting during 3 unannounced visits of schools. Estimation of effect of students' attendance on students' achievement, repetition rate and dropout rate were also the part of the study. The schedules for data collection and sampling plan were finalized centrally. The study was conducted by different agencies in different states, using common methodology and tools. An **abridged synthesis report** of the study based on the state reports was prepared and distributed. Full synthesis report
was published by Ed.CIL in 2009.

**Major findings:** It was found that overall average attendance rate of students was 68.5% at primary and 75.7% at upper primary levels. For teachers, the average attendance rate was 81.7% in primary schools and 80.5% at upper primary schools. The attendance rate of girls was a little higher than that of boys. The average attendance rate of boys and girls at primary level in the first hour was 69% and 70.6% respectively, and at upper primary level, 75.2% and 78.7% respectively. The average attendance rate in first hour was a little lower for SC and Muslim students at primary level (68.7% and 66.4% respectively) compared with that of all students but at upper primary level there was not much difference between attendance rates of different social groups; these were between 76% and 79%. The lowest attendance rate was in class 1 (65.6%); it increased gradually after that by 2 percentage points from one class to the next; however, there was no such increase from class IV to V. The overall average attendance was a little lower in rural schools than urban schools (68.0% and 71.2% respectively at primary level), but in some states, the opposite was the case. Similar was the trend at upper primary level (73.7% in rural schools and 79.7% in urban schools).

The main reasons for children absenting from schools given by head teachers, teachers and VEC members were (a) lack of adequate facilities in school, (b) teacher shortage and overcrowded classrooms, (c) children being required for household work or sibling care at home and (d) children required to help parents in agriculture or occupational work or participation in other income generating activity and (e) parents' indifference or lack of
interest in child's education. Parents mostly felt that lack of facilities in school and child's unwillingness to go to school were main reasons for child's frequent absence from school.

**All India Sample Survey to estimate number of Out of school children (2005)**

A major sample survey was conducted in 2005 for assessing the number of out of school children in the country in the age group 6-14. While Research, Evaluation & Studies unit of Technical Support Group of Ed.CIL (India) Ltd. for Sarva Shiksha Abhiyan provided technical guidance and helped in selection of samples of villages and urban blocks and in estimation of the percentage and number of out-of-school children, the survey was actually conducted by **Social & Rural Research Institute -IMRB International (SRIIMRB)** in all the states and Union territories covering rural and urban areas of 588 districts. Data were collected during the months of July to October 2005 from a sample of 87874 households in 3178 villages and 1823 urban blocks covering all the districts. The findings of the survey indicated that the country had about 19.4 crores children in the age group 6-13 (i.e. 6 to below 14 years), of whom 6.9% children were out of school. Amongst the out of school children, 68.3% children had never attended school and 31.7% were dropouts. Further, out of those children who were attending school, 97.3% studied in Government or Private recognized schools (including recognized Madarsas/ Sanskrit Pathshalas) and another 1.8% attended unrecognised schools. The remaining 0.9% children attended Education Guarantee schools, Alternative & Innovative Education centres or recognized Madarsas/ Sanskrit Pathshalas. The report of the survey was
published by Ed.CIL in 2006.

Study of Scholastic achievement and literacy level of children at the end of primary stage (2005)

This study was conducted in four states — Uttar Pradesh, Orissa, Karnataka and Maharashtra. In each state, two District Primary Education Project's (DPEP) districts were selected for testing the students of terminal grade of primary stage (grade V in Uttar Pradesh and Orissa and grade IV in Karnataka and Maharashtra). The main objective of the study was to find out how various school and teacher variables affect students' achievement. The samples of schools selected for the study were the same as selected for Terminal Assessment Survey (TAS) of DPEP. The tests in language and Mathematics that have been used for testing students were the same as used in TAS, since the second objective of the study was to find out what the achievement level of students is after two to three years of termination of DPEP. A third objective of the study was to assess the level of literacy and numeracy attained by students who were about to complete their primary education, using appropriate tests of literacy and numeracy. Final reports were received from all the states. A short national report of the study was also prepared.

Major findings: The average achievement (average of two districts) could be considered as satisfactory in Uttar Pradesh but quite poor in Karnataka and Orissa. The mean scores expressed as percentage of maximum marks in language and mathematics respectively, being 60.1 and 54.5 in Uttar Pradesh, 28.8 and 27.1 in Karnataka; and 50.1 and 38.9 in Orissa. It is
noticed that the achievement level assessed by TAS tests in language and mathematics had declined in all the three states after two years of termination of DPEP except in the language test in Orissa, in which it had increased. Achievement in literacy tests indicate that around only one-fourth of the students in Karnataka (27.1%) and Orissa (27.6%) could be deemed as literate. In Uttar Pradesh, the picture was better with more than half (54.2%) of students belonging to this group. Very few students were found to be fully literate i.e. scoring 75% and above. Only 0.5% in Karnataka and Uttar Pradesh and 1.3% in Orissa scored over 75% marks in literacy test. In all the three states, students' achievement in reading comprehension was higher than that in reading aloud and writing.

Development of numeracy skill was observed to be inadequate with more than half of the students scoring below 40% marks in the numeracy test in Karnataka (60.7%) and Orissa (53.7%). However, in Uttar Pradesh only 15% of the students scored below 40% marks.

**Study on teaching of English at primary level**

This study attempts to provide an understanding of the way English is being taught in government primary schools across the country. The focus was on assessing the appropriateness of material included in English textbooks of primary classes; to identify the lacunae in the existing textbooks, to find out how English in taught in the classes in which it is introduced for the first time; to make an assessment of training programmes for preparing teachers of English, and to assess their competence of teaching English at the primary level.
National Council of Educational Research and Training was entrusted with the task of conducting this study in 8 states (Gujarat, Uttar Pradesh, Chandigarh, Nagaland, Maharashtra, Tamil Nadu, Orissa and Jammu & Kashmir). The study has been completed and its draft report is ready.

Chacko (2000) has conducted a study on ‘Availability and Utilization of Educational Media during in-service training imparted by educational technology (ET) faculty of DIETs in Kerala’.

The objectives of the study were: (i) to investigate the existing staff strength in ET faculty of DIETs. (ii) to investigate the training acquired by in-service in ET faculty of DIETs. (iii) to investigate the availability of physical facility in ET faculty of DIETs. (iv) to investigate the availability of technological equipments in ET faculty of DIETs. (v) to investigate the extend of training imparted in operating during in-service training of DIETs. (vi) to investigate the extend of training imparted in the preparation of software during in-service. (vii) to investigate the extend of utilization of the educational media (Graphic media, display media. 3-D media, project media, Audio media, Audio-visual media, activity media print media) during in-service training. (viii) to identify the problems faced by E.T faculty of DIETs.

The findings of the study were: (1) The existing strength in ET faculty of DIETs is not satisfactory. (2) The members of ET faculty are not trained in the main areas of ET. (3) Physical facilities are not adequate as the DIET guideline. (4) DIETs are not equipped with Hardware and Software. (5) Training provided to teachers in operating technological equipment during in-service training in ET faculty was far below the expected level. (6)
Technological training imparted by E.T faculty preparing software was not satisfactory. (7) Utilization of Graphic media was satisfactory. (8) Blackboard, Bulletin board, Flannel Board etc. are used in all ET faculty and (9) Activity media and print media are utilized in in-service training.

Mrunalini (2000) in her study, ‘The indicators of learning at early childhood for better future education’, observed that majority of the teachers were not interested in supporting the early education because of unable to communicate those children with their teaching skills. They need some more education skills through which they can education or communicate the children who are in early childhood.

NCTE (2000) in its report pointed out the issues and weakness of DIETs in Kerala. All DIETs possess qualified principals, senior lecturers and lecturers with M.A. M.Ed. having minimum of three years teaching experience. They are good at organizing camps processions and other similar programmes. But their professional capacity as teacher educators needs to be improved in respect to teaching ability and doing research. Competencies expected of a teacher educator need to be improved in certain cases as many of them have acquired their professional degrees (B.Ed./M.Ed.) through correspondence courses. Teachers are recruited on the basis of merit and interview by a special board constituted by the Government. All DIETs are run by the Government of Kerala. Most of the staff in the DIETs are deputed for seminars, workshops, conferences and also orientation programmes organized by NIEPA, NCERT, SCERT etc. A few teachers participate in the development of instructional materials and teaching aids. The DIETs organize various programmes of the Department of Education and District
Primary Education. They have provision to orient teachers in Operation Black Board. Minimum Levels of Learning and establishing a relationship with community. The staff are entitled to join schemes such as provident fund, insurance etc and have the benefits of availing. House building advance, vehicle advance and medical assistance. Five DIETs have quarters for Principals, teachers and administrative staff. The overall percentage of such facilities varies between 40-60.

Inculcating professionalism among the staff training, DIET staff in the use of hardware and software of educational technology for in-service and pre-service teacher education are some of the main issues. The weaknesses of DIETs include lack of books for libraries, computer operators, statistician etc. So far they are not in a position to ensure co-operation of the community in all their activities. Intensive training in teacher education curriculum construction and transaction is very essential. Certain teachers in DIETs among the cast majority feel that they are capable of doing everything even the preparation of curriculum without an understanding of the principles of curriculum development through tasks like text book preparation is of serious nature. At present, there are no programmes for institutional development. But some programmes such as financial autonomy for DIETs provision of infrastructure facilities, co-ordination with local bodies making staff more resourceful to meet the challenges of primary education have been suggested.

NCTE (1998) objectives of competency based in-service Teaching Education.
An in-service competency based teacher education course will enable the teacher to (a) understand the cultural and socio-economic background of elementary school pupils (b) develop an insight into the problems of elementary education and acquire competence to solve them. (c) comprehend the importance and concept of Minimum Levels of Learning for improving quality in school education (d) understand the concepts of cognitive and subject structure and their relationship with children’s learning (e) compare the ways and means of promoting learning under traditional and competency based teaching and make changes wherever necessary (f) evaluate planning and implementation of co-curricular and other educational activities and modify the same (g) develop understanding about the ways of procuring and using teaching learning materials to encourage guided/independent self learning among pupils (h) use evaluation for continuous feedback of pupils with a view to assisting them in achieving expected level of mastery: (i) understand principles and practices in getting others cooperation inside and outside the school (j) develop partnership with parents in facilitating development of pupils (k) seek co-operation from the community and various other developmental agencies to make school a centre of development of the locality. (l) strive to attain professional excellence and follow basic values (m) make sincere efforts to practice a value based approach.

ARORA et al. (1997) has conducted a study about E.K.Lavya’s Content Specific Activity Based Training of primary Teachers. E.K.Lavya, a non-governmental organization started training of primary teachers from 1986. The main objectives of training were to:
• Fine – tune the skills of learning by doing approach;
• Enrich teachers knowledge in different subjects;
• Develop teacher’s capability in undertaking action research;
• Salient features of the training methodology are mentioned below;

• The training of primary teachers is through 3 tier cascade model. Training is first imparted to key persons who is in turn provide training to resource persons. These persons provide training to primary teachers;

• The training of key persons and the Resource Persons is as rigorous as of primary teachers. The duration of training of key persons and resource persons is of 10 days and that of primary teachers is 15 days;

• In order to minimize the transmission loss, the gap between training of key resource persons and that of resource persons and between the training of resource persons and that of primary teachers is almost zero;

• The training is activity based. This is achieved by use of waste materials, local resources

• Asking teachers to read aloud the training materials one by one and also encouraging them to explore activities which they can perform in the class room;

• Providing training in simulated conditions;

• Encouraging individuals for effective thinking..

**Agarwal and Kamlesrao** (1997) conducted a study on “the quality of in-service teacher training programmes for primary school teachers-An
appraisal study’. It attempts to study the quality of in-service training programme in relation to coverage of content and transactional studies and ascertain the extent of transmission loss in teacher training programmes.

Objectives of the study were: (i) To study the quality of in-service teacher training programmes in relation to coverage of content and transactional strategies and (ii) to ascertain the extent of transmission loss in teacher programmes. Two groups of resource persons training and four groups of teachers of teachers trained under Special Orientation Programme for Primary Teachers (SOPT) and District Primary Education Programme (DPEP) projects in the State of U.P. and Haryana were randomly selected. Coverage of content and the mode of transactional strategies were observed using observation schedules.

Major outcomes of the study were: (i) Considerable amount of content was not transacted in the training programmes for resource persons under DPEP and SOPT programmes. (ii) Further loss was observed at teachers level as more content were left out. (iii) Emphasis was on transmission of information and knowledge rather than on instructional strategies and activities. (iv) Transactions during training were mainly through lectures and discussions. Group work activities were too less. (v) The loss of information was more in SPOT than in DPEP training programme. (vi) DPEP training programme compared to the SOPT programme provided better quality of training in terms of more coverage adoption of child centred activities and less loss of information.

**Bhattacharjee (1997)** conducted a study on conceptual model of teachers empowerment at primary level: Contextual issues emerging
paradigms and parameters. The focus of this study is on teacher empowerment issues at primary level. It attempts to highlight the emerging paradigms of primary education and identify an agenda for tomorrow’s child.

Objectives of the study were: (i) to identify the teacher empowerment issues at primary level. (ii) to highlight the emerging paradigms of primary education and implications for teacher empowerment. (iii) to identify agenda for tomorrow’s child. (iv) to highlight teacher empowerment strategies derived from empirical research findings on teachers’ empowerment issues at primary level and (v) to develop a conceptual model of teacher empowerment highlighting its parameters.

The teacher empowerment issues and empowerment strategies at primary level have been derived from Baseline Assessment Studies in various districts of Assam, Madhya Pradesh, Maharashtra and Orissa and findings of empirical studies on training needs of teachers, teacher quality, teacher education curriculum, teacher’s role, teacher effectiveness and teacher’s motivation at primary stage.

Major outcomes of the study were that the conceptual model of teacher empowerment at primary level will help build capacities in DIETs/CTE/ BRCs / CRCs to empower the teacher with modalities / tools / techniques / designs / guidelines to operationalize the multiple strategies to finally empower the learner. The teaching learning process, the parents, the learning conditions, the community and to enlarge the canvas of institutional capabilities.
Khader (1997) conducted a study on ‘A model for strategic planning of in-service training inputs for teachers’.” Objective of the study was to outline a model for using strategic planning approach in choosing training inputs in the in-service training programmes for teachers. The model is formulated based on the evidence emerging from the analyses of field reality and available research studies. By critically examining the field reality in terms of the prevailing patterns of training entry level qualification duration size of teachers pupil teacher ratio, multi-grade and non-multi-grade system of schools. The paper points out the need for adopting planning approach in designing training inputs.

Major findings of the study were: (i) There are evidences to the effect that systematic planning of training inputs-pedagogy and management strategies-facilitates teachers to perform their professional roles effectively. It means planning of training inputs did make a difference. (ii) Indicators provided the framework for planning training inputs by facilitating the selection of training inputs, developing materials executing training and verifying whether they make any difference. Obviously, indicators provided a framework for formulating a data based model in training by integrating development training and research.

Kulkarni (1997) conducted a study on ‘An investigation into the classroom management behaviours of teachers and its implications for the teacher training’. Objectives of the study were: (i) to identify factor structure of teaching behaviour in special context of classroom management. (ii) to study the classroom behaviour of teachers having effective and ineffective classroom management. (iii) to identify factors facilitating and hindering
classroom management behaviours of teachers and (iv) to enlist components of classroom management skill and draw implications of the same for teacher training.

The sample of the study comprised 840 students and 168 teachers of the higher secondary stage from Kolhapur city. The students were selected randomly. The tools used to collect data were Classroom Teaching and Managerial Behavioural Analysis battery (CTMBAB) by the researcher in Marathi. Teacher Behaviour Marathi, Teacher Behaviour Scale, Students Overt Behaviour Scale and Student. Covert Behaviour Scale. The collected data were treated using factor analysis.

Major findings of the study were: (i) It was found that the various factors served purely instructional function were (a) General Lecturing Competency (GLC) covering questioning for feedback, Closure, blackboard work, reacting, teacher’s interacting personality, mastery over plan and content (b) teacher’s solicitation and reacting (c) the linguistic competency deficiency (d) the strict content building tendency (e) teacher’s mastery over plan and content and (f) modulating gestures and speech. (ii) It was found that the various factors served purely managerial functions were: (a) general classroom management competency (b) instructive momentum (c) controlled smoothness and (d) teacher’s status maintenance (iii) It was found that the various factors served both managerial and instructional were: (a) GLC covering, set induction, explaining and stimulus variation (b) B.B work for originated pacing (c) socio-emotional permissiveness (d) timely use of non-verbal media (e) teacher’s purposive physical movement and (f) teaching flow management deficiency.
Lakshmi Narayana (1997) conducted a study on the Impact of in-service training on teacher empowerment with special reference to professional skills of primary teachers’.

Objectives of the study were: (i) to identify essential professional skills for teacher empowerment (ii) to develop professional skill scale (PSS) and observation checklist for measuring professional skills of primary teachers (iii) to identify professional skills of resource persons and teachers (iv) to find out the discrepancy of professional skills between resource persons and teachers and (v) to find out the differences of professional skills between Andhra Pradesh Primary Education Project trained and untrained teachers.

The sample of the study consisted of 200 teachers drawn randomly from five coastal districts of Andhra Pradesh. Forty-six resource persons, 115 APPEP trained teachers and 30 teachers not trained under APPEP were also included in the sample. Tools used to collect the data included Professional Skills Scale and Observation Check-list. The collected data were treated with ‘t’ value.

Major findings of the study were: (i) It was found that resource persons and trained teachers did not differ in the professional skills such as questioning, story telling, using different cards, investigating and experimentation using real objects, working with different cards, making models, recording individual work, group work, whole class work, identifying student potential, assigning tasks based on student potential, involving all students in teaching-learning activity, formation of heterogeneous groups, using local environment and display of teaching-
learning materials (ii) It was found that there was a significant difference between resource persons and trained teachers in respect of skill of comparison, observing and generating ideas through questioning (iii) Classroom observation results showed that there was significant difference between trained and untrained teachers in the skills such as questioning, story telling using different cards, investigating and experimentation, using real objects, working with different cards, making models, recording, individual work, group work, whole class work, identifying student potential assigning tasks based on student potential involving all students in teaching-learning activity, formation of heterogeneous groups, using local environment and display of teaching learning material (iv) It was found that trained and untrained teachers did not differ in the skills of comparison, observing and generating ideas through questioning. Trained teachers, due to lack of proper inputs during in-service training did not differ in these skills from their counterparts without training. (v) It was revealed that in-service teacher training helped many teachers in acquiring seventeen professional skills out of twenty skills. But in-service training did not empower primary teachers in these professional skills, viz., comparison, observing and generating ideas through questioning.

Mishra and Kishore (1997) conducted a study on Teacher empowerment issues related to development of local specific competencies based curriculum at Primary level. It attempts to study the effect of module to empower the primary school teacher in developing local specific competencies based curriculum.
Objectives of the study were: (i) to assess the training need of primary school teachers in Environmental Science. (ii) to know the impact of training module in Environmental Studies based on local specific MLL based curriculum development. (iii) to judge the competencies of teachers in the application of MLL based curriculum after the administration of the module and (iv) to know the school effectiveness through learning achievements after the application of MLL based strategies.

Fifty two primary school teachers from three Blocks and one Municipality under Jeypore Education District constituted the sample of the study. Tools used included a module, worksheet and an observation schedule. The collected data were treated with percentages.

Major findings of the study were: (i) Prior to the implementation of MLL based curriculum it was highly essential to orient the primary school teachers to know how to develop local specific competencies based different activities. (ii) There was a positive impact of module to empower primary school teachers in developing competency based local specific curriculum (iii) There was appreciable empower of primary school teachers to enhance the achievement level of students in EVS after the orientation.

Paranjpe and Sandhya (1997) conducted a study on ‘Developing partnership for teacher empowerment: A focus on INSET’. Objectives of the study were: (i) to examine the present status and use of partnerships in INSET programmes (ii) to assess teachers; perception on the need for partnership development in INSET and (iii) to identify partnership pattern for improving INSET and its application in primary schools.
The study was conducted in four randomly selected rural blocks from four educationally backward districts of Maharashtra, Within each of the blocks a list of primary schools was drawn up. From each of the four lists 20 schools were randomly selected. The total sample comprised 8-schools and 200 teachers. Interview was the major tool. The collected data were analyzed qualitatively.

Major findings of the study were: (i) Most of the INSET programmes did not use partnerships as a strategy for promoting education and training of primary school teachers, either as a part of the overall training strategy or specific INSET programmes (ii) Teachers strongly expressed the need to establish and promote different kinds of partnerships particularly tripartite between the community (Panchayat VECs) parents, business/factory owners and other organizations at different levels in the district. For the realization of INSET inputs a support system of teacher peer groups along with an expert facilitation/guide, was categorically emphasized as necessary basic prerequisites, both crucial mechanisms for achieving continuity and applicability of new INSET practices. INSET needed to be viewed as a continuous ongoing activity and not a one time input.

Venkataiah (1997) conducted a study on Impact of inputs provided in District Institutes of Education and Training (DIETs) on teaching competency. Objective of the study was to study the impact of inputs such as adequacy of staff, student personal services, academic and auxiliary facilities, co-curricular activities and practice teaching provided in DIETs on teaching competency of student-teachers. A sample of 600 student-teachers from six DIETs in A.P. was drawn following multistage stratified random
sampling. The data gathering tools were Teaching Competency Scale and a questionnaire. The collected data were treated with mean, SD, ‘t’ test and ANOVA. Major findings of the study were: (i) Student teachers belonging to DIERs with partially adequate staff were superior in their teaching competency compared to their counterparts in DIETs with inadequate staff. (ii) Individual guidance in subject knowledge improvement and tutorial system had significantly influenced the teaching competency of student-teachers (iii) More the academic facilities provided in DIETs the higher was the teaching competency of student-teachers.

Pushpanathan (1997) conducted a study on Discovering teacher potential through the capacity building programme: An experiment in primary education. The objectives of the study were: (i) to identify teachers’ potential in organizing the educational activities in primary schools (ii) to foster teacher potential, skills through teacher initiated programmed (iii) to find out the difficulties faced by the primary school teachers in teaching different school subjects (iv) to study the effectiveness of the programmes and (v) to train the teachers on pedagogic skills through the teacher initiated programme.

Major findings were: (i) It was found that the primary school teachers having various skills and talents which were useful for educational activities made learning more joyful. The specific talents of the primary school teachers were story telling, singing, preparing low cost and creative teaching aids, writing humours poems, basic content mastering in primary school subjects and public speaking/communication (ii) Sensitizing teachers in social issues was found to be effective to boost teachers’ professional
commitments (iii) Teachers’ participation in the capacity building programme was maximum Teacher initiated programmes were found interesting and appropriate in-service training programme for primary school teachers (iv) Teachers showed interest in participatory programme (v) Teachers found difficulty in teaching mathematics and science (vi) recognition and appreciation were found to be most effective motivational factors for the teachers (vii) Teachers opined that the teacher initiated in-service programmes were interesting and useful to the teachers as they were need-based.

Anjaneyulu (1996) attempted a study on ‘An investigation into the impact of Training on teachers in the implementation of six learning principles of APPEP’. The objective of the study was to find out the changes in APPEP schools after training and the difference between children is learning in APPEP and non-APPEP schools. The sample consisted of 10 teachers and 100 children from same APPEP schools for experimental group and same number of teachers and children from non-APPEP schools for controlled group. The study showed a lot of difference in the activities of teachers and children’s learning in experimental and control groups. That difference in experimental schools was due to the impact of training.

Ajit Sing and Anil Kumar (1996) studied about the “training needs for primary teachers”. The objectives of the study were: (i) To analyze state policy on teachers- their training, transfer policy, service conditions, incentives for effective performance etc. (ii) To assess adequacy of facilities for in-service education of teachers. (iii) To determine training needs of
teachers. (iv) To study perceptions of teachers with regards to their promotional prospects.

Survey method was adopted for this study. The main tool of this study was an interview schedule. The major findings of the study are given below:

- In the most of the states the minimum academic qualification for the post of primary school teacher is 12 years schooling. As such 59% matriculate teachers are under qualified.
- The transfer policy of a State has a significant influence on the level of teachers motivation.
- Only 12% of teachers have attended short-term in-service training programme.
- Teachers were asked to mention the areas in which they need training. Teachers reported that they need training in the content of school subjects method of teaching and multi-grade teaching play way techniques for teaching.
- The following were the important implications which emerged from the study.
  - The DIET need to be urged to conduct studies to assess in service training needs of teachers working in area.
  - Further the organizers of in-service training should consider the conditions of work place of teachers while designing in service programmes.
Studies need to be undertaken to determine the impact of in-service education on teachers class room practices and pupils learning achievements.

The state should formulate in service education policy.

Elahi (1996) conducted a study on ‘A Critical study on in-service training of State Council of Educational Research and Training. This study related to evaluate the different aspects of in-service teacher education programmes of various educational functionaries organized by State Council of Educational Research and Training, Delhi. The sample comprised of 350 educational functionaries like principals, vice-principals. PGTs and TGTs who were selected by random method of sampling from the five districts of Directorate of Education, Delhi. The tools used to collect data were questionnaires and information black proforma. The collected data were treated with percentages and frequencies.

Major findings of the study were: (i) It was found that 44 percent each PGTs and TGTs, 40 percent Principals and 72 percent Vice Principals were not satisfied with the weightage given to the general awareness aspects. (ii) 41.33 percent PGTs and 37.33 percent TGTs considered that the pedagogical aspects was one of the weaker areas in the programmes. (iii) 74 percent PGTs and 62.67 percent TGTs observed that the resource persons were dominating the proceedings. (vi) 72.67 percent PGTs, 64.67 percent TGTs, 72 percent Principals and 60 percent Vice-principals opined that they were satisfied to some extent with the approaches adopted by the resource persons. (v) 59.33 percent PGTs and 33.33 percent TGTs, considered that
the material distributed was irrelevant and 64 percent principals and 72 percent vice-principals observed that some of the material distributed were useful (vi) 42% PGTs and 46.67 percent TGTs, 52 percent principals and 64 percent vice-principals considered the duration of the programme was too short. (vii) 76.67 percent PGTs, 70 percent TGTs, 52 percent principals and 72 percent vice-principals were happy with four sessions held in a day. (viii) Regarding the duration of lecture, 81.33 percent PGTs, 78 percent TGTs, 60 percent principals and 52 percent vice-principals considered one hour and twenty minutes time as appropriate. (ix) 83.33 percent PGTs, 95.33 percent TGTs, 88 percent principals and 52 percent vice-principals suggested that emphasis should be laid on group discussion and panel discussion respectively. (x) Regarding overall rating of the programmes 34.67 percent PGTs, 52 percent principals and 60 percent vice-principals opined average quality while 43.33 percent TGTs observed good quality. (xi) With regard to follow up of in-service education programme, 92 percent PGTs, 96 percent TGTs, 52 percent principals and 64 percent vice-principals realized that they would be using new ideas/techniques learnt in the programmes.

Govinda (1996) described the importance of teacher education and professional development. According to his study out comes the teacher educators should help teachers to develop their insights into the practical theories, which structure their practices. Professionalism could only be developed on an ongoing basis through experiences and experimentation. Training only help one to feel more confident as a teacher. Teachers’ professional development, within and out side classroom is a product of their reflectiveness and participation in educational opportunities, that will enhance and extend their growth and development. In addition,
professionalism among teachers is built through a support system from colleagues.

Sarada (1996) conducted a study on ‘Effectiveness of Strategies Used in Developing Information Processing Skill Involving Thinking In Teaching of History’. The following conclusion may be drawn on the basis of findings. The strategies used in developing information processing skill involving are more effective than using traditional approach in teaching History. These strategies deepen the imagination and understanding of the students. These strategies also help the students in processing and organizing information in meaningful compact structures which are in easily readable form.

Verma, Pushpa and Chabra (1996) conducted a study on ‘Application of pedagogical knowledge and skills acquired in teacher training to school teaching by primary school teachers of Mathematics’. The study attempts to assess teachers’ perceptions on the need to reform existing classroom instructional practices in small size primary schools problems faced in doing so and way to resolve them. The objectives of the study are (i) to find out the extent of familiarity with the skills, strategies and devices during the pre-service teacher training and the extent to which teachers are able to employ the training competencies in their classroom practices and (iii) to enquire them into the difficulties and limitations of teachers in using their pedagogical skills and competencies in actual teaching of mathematics. The sample of the study comprised 100 primary school teachers teaching mathematics. Schools were selected on the basis of the representative sampling keeping in view both rural and urban zones. Questionnaire and
interview were used for the collection of data. The collected data were treated qualitatively. Major findings of the study were: (i) Teachers had sufficient knowledge of subject matter and they did make an initial preparation for the course in advance. (ii) Teachers tended to use predominantly one or two teaching techniques namely illustrations and problem skills. (iii) Most of home work given by the teachers originated from the assigned textbook and was checked by teachers. (iv) Majority of the teachers were found having high professional qualifications than required which led to the difficulties of handling all subjects by a single teacher.

Aiholli and Sahoo (1995) studied ‘Nature and forms of In-service Education for Secondary Teachers in the Karnataka State by 2005 A.D. The objectives of the study were (i) To forecast the types and forms of in-service education towards 2005, (ii) To study inter-relationship among different training technology for in-service education towards 2005 and (iii) To study the in-service training for teachers to change their personality and behaviour in positive ways.

Major findings were: (i) The respondents expect the change in method of in-service education. The methods were focused on ‘Brain Storming’ with 70.5 percent probabilities where as to use the desirable methods with high probabilities read as workshop, project, symposium, self-study instructional materials. (ii) With respect to acquaintance with new educational technology of in-service education 59.3 probabilities such as computer programming.

Jangira et al. (1995) conducted “a study on Teacher policy, Training needs and perceived status of Teachers”. The specific objectives of the study
were (i) document and analyze state policy on teacher training, their recruitment procedure, transfer policy, demand and supply initial and in-service training etc, (ii) document and analyze infrastructure facilities available at the district level for initial and in-service training, (iii) study perception of teachers about their social economic and professional status, (iv) identifying training needs of teachers and (v) survey was the method of the study.

The important findings of the study indicates that the teacher’s perceptions about their initial training programmes were ascertained. About 30 percent teachers in Haryana and 40 percentage in Kerala expressed that the initial training which they received was not satisfactory. In most of the districts less than 50 percent teachers could get an opportunity to undergo in-service education once during the last five years. The low coverage of in-service training programmes in the districts is due to funds and the absence of a conscious policy. The following areas were mentioned by the teachers for in-service training. (a). content of school subjects (b) method of teaching (c) multi-grade teaching (d) play way techniques for teaching (d) preparation and use of improvised teaching aids. Most of the head teachers expressed that they need training in the following areas: (a) General administration (b) Providing instructional support to teachers (c) Team building (d) Seeking community support.

Menon (1993) has conducted a study about selected DIETs in Kerala. The specific objectives of the study were (i) to study the overall scenario of implementation of the scheme of DIET in Kerala, (ii) to identify areas of educational intervention selected by the DIET in the socio-economic and
educational context of the district, (iii) to survey the activities undertaken by the DIET since its inception through training research and resource support, (iv) to study the administrative financial and academic support received by DIET from other agencies and (v) to formulate recommendations for making DIETs more effective.

Methodology of this appraisal was survey. The tool employed for this study was an information schedule. She visited DIETs of Kasaragod, Wayanad, Trissur and Ernakulam for this study. The major recommendations were suggested for improving the situation of teacher education in Kerala shows (i) Government of India assistance to DIETs should go directly to autonomous institutions. Funding also should be given directly to the concerned agencies. (ii) Constitution and activation of state level and district level steering committee for teacher education projects. (iii) Creation of a cell in the SCERT and designation of a Nodal Officer in the State Secretariat to look after teacher education.

Mohana Chandran (1993) has conducted a study on the priority of training needs in management development for Heads of Primary Schools in Kerala. The objectives of this study were (i) to identify areas in which the heads of primary schools, (ii) to assess the perceived gap in the competencies on various aspects of planning and management and (iii) to determine the training priorities on the basis of the felt need in actual work situation.

According to the author, training programmes are arranged without paying much attention to find out what a group of learners needs to learn. Actually this leads to wastage of resources and the trainees do not get any
desired benefit. Some trainers give major emphasis to conduct the training program than its preparation. The design of attaining programme is the preliminary blue print which becomes basis for its actual conduct.

National Advisory Committee headed by Yashpal (1993) enlisted about pre-service and in-service teacher education. In the context of constructing a new self-image of the teacher pre-service training is a key but elusive area of reform. Past attempts to improve teacher training programmes and institutions have met with rather limited success. By and large teacher training continues to be isolated from mainstream academic areas related to education. In-service training too in most of the place, has assumed the character, a ritual devoid of academic substance or the capacity to stimulate. The current efforts to provide statutory status of the NCTE may perhaps make some impact on the weak training that is generally available in the country to people, who want to work with children, especially young children.

Sharma (1992) has developed “An appraisal of accountability of Teacher Educators in DIETs in Haryana”: The objectives of the study were (i) to identify the area of accountability of the teacher educators in DIETs in Haryana, (ii) to study the difference between the perception about accountability and their actual performance and (iii) to establish the teacher–educators attribution for the performance. Hence, it had been hypothesized that teacher-educator working in these pace setting ‘teachers’ training institution have been performing their job as per required and there is incompatibility between the perception about accountability of their actual performance.
Jangira and Ahuja (1990) studied the “effectiveness of co-operative learning based training in an in-service training programme for teachers”. They concluded that the ultimate effectiveness of the training would be determined by the change in perception of children about teacher and teaching and improvement in their attainments.

DIET (Namakkal, Salem District, Tamil Nadu). (1992) studied through Research Project on Developing a Plan for In-service Education of Elementary Teachers at District Level. (This research project was submitted in part-fulfillment of the requirements for the diploma in Educational / Planning and Administration of the NUEPA).

The main objectives of the study were: (i) to identify the expectation of a DIET at grass root for in-service education of teachers, (ii) to review the present status of in-service education in the selected DIET since its establishment, (iii) to identify the gaps between the planned, targeted and the actual situation, (iv) to study the possible reasons for the lapses and (v) to develop a plan for in-service education of teachers with the existing framework.

The major findings of the study were: (i) Most of the teachers desired to have continuing education / refresher course in school. (ii) Little importance was attached to national goals like UEE and MLLs. (iii) No effort was made to involve teachers in the planning, evaluation and follow-up of in-service programmes. (iv) Educational administrators were not convinced by the quality improvement in teachers after in-service programmes. (v) There is no difference in teachers’ attitude towards teaching profession after training as per administrator’s opinion. (vi) DIET
too cannot meet the demand for in-service education at district level. (vii) Funds provided were inadequate for DIET. (viii) There are no attempts so far at the state level in training all the teachers at elementary schools within five years. (ix) So far no attempt was made to identify the teacher’s need at district level.


The main objectives of the report were: (i) to study the programme inputs (key persons, resource persons, physical facilities of training camps, curriculum transaction, use of media and quality of guest lecturers) (ii) to study the effectiveness of learning packages including awareness of NPE components learner-centred approach use of media and continuous comprehensive evaluation (iii) to study the various innovative practices followed by the resource faculty and participating teachers (iv) the study the follow-up study of the teachers oriented and opinion survey of Principals with regard to the performance of teachers oriented (v) to study implications of the evaluation study with a view to re-designing and restructuring the in-service training in the subsequent years.

The main findings of the study were: (i) The younger participants were found to be more active, resourceful and participating in the programme. (ii) The physical facilities like toilet, water, light, seating arrangements were satisfactory only at some of the centres. (iii) All the modules were not self-explanatory. They were unable to generated motivation and develop competencies and skills in the teachers. The
resource persons did not discharge their duties and responsibilities with the needed sense of commitment, devotion and involvement. (iv) ‘Lecture’ and ‘Discussion’ methods were largely followed. (v) Telecasts from Delhi Doordarshan were not used profitably by the teachers. (vi) Selection of guest lectures and deliberations was found to be ineffective. (vii) Accommodation facilities for the teachers in the hostels were inadequate. (viii) There was a significant change in the perception of teachers in respect to general awareness topics. (ix) There was a considerable increase in the awareness with respect to salient features of NPE-1986 and modalities of curriculum transaction etc. (x) In the area of competency and skill development in curriculum transaction modalities, there was no significant increase in outside classroom activities. (xi) There was increase in the activities and functions of the oriented teachers in the school.

**Butala** (1987) conducted a Critical Inquiry into In-service Educational Programmes conducted by Secondary Teachers Training Colleges of Gujrat State. The objectives of the study were: (i) to study the existing position of in-service educational programmes in secondary teachers training college classified by types organization and factors affecting planning (ii) to study the usefulness of in-service educational programmes for teachers and (iii) to study in-service educational programmes according to the assessments of the participants resource personnel and coordinators.

Some of the major findings were: (i) On an average a college conducted about 33 programmes. The maximum number of programmes were conducted in 1982-83 and the minimum in 1984-85. (ii) A majority of
the teachers were not covered under any in-service programme. (iii) Secondary teachers from Bharuch, Banaskantha, Amreli, Bhavnagar, Surendranagar and Kachchha districts were not covered by in-service programmes in a systematic way. (iv) In one year the average time spent by the secondary teachers training colleges for in-service education programmes was 231.4 hours. Programme-wise the time allotted was 6.9 hour per programme. (v) The main modes employed in the programme were lecturers, seminars and workshops. No audio-visual aids were employed. (vi) The in-service educational programmes concentrated mainly on school curriculum. Very few training colleges focused on areas like educational technology, administration, management and modern trends in education. (vii) The programmes of in-service education were planned by the advisory committee of the centre. (viii) The teachers were in favour of in-service training programmes being organized on working days only. The second preference was summer vacations. Working on weekends was their last preference. (ix) The training colleges did not have adequate facilities for conducting the programmes. (x) Teacher-participants considered an attendance certificate to be a proper incentive for participating in in-service programmes. They, however desired that such attendance should be considered a necessary qualification for the purpose of promotion (xi) Most of the resource persons felt that a monetary allowance was the best incentive.

Purkar (1986) attempted a study on “The Effect of Microteaching on the training competence of In-service teachers and its Impact on pupils’ attainment and pupils’ liking”. The study was designed with the following objectives.
To study the effect of microteaching (MT) training on the development of selected skills, viz. Probing Questions (PQ), Reinforcement (RE). Explain with Examples (EX) and Stimulus Variation (SV) among in-service teachers.

To study the effect of MT training on the development general teaching competency (GTC) of in-service teachers.

To study the effect of MT treatment of pupils’ liking for their teachers.

The sample included 36 teachers and their 729 pupils from 17 schools. The pre test post-test control experimental group design was employed in this study. The findings were (i) microteaching treatment had a positive significant effect on the development of skills. Viz. PQ, RE, EX and SV. (ii) M.T. treatment had a positive significant effect on the development of GTC. (iii) M.T. treatment had a positive significant impact on pupils attainment. (iv) M.T. treatment had positive significant impact on pupils liking for their teachers. The implications are (i) M.T. should find a place in in-service teachers education programme (ii) The procedure of M.T. training should consist of general orientation of M.T. technique.

Singh (1985) investigated into the programmes and perspective of in–services Teacher Education. He concluded that many areas where the course was weak like lack of follow–up studies and evaluation of courses. The new dimensions included Mastery Learning Approach. Development of values working the community Self-study skills etc. Training strategies need to be based on the variety of training situations including face to face interaction and distance learning to exploratory problem solving experiences arising out the role performance.
Syag (1984) conducted a study on “Teaching competence of pre-service and in-service Teachers trained through different treatments of Microteaching”. The main objectives of the study were: (i) to find out the relative effectiveness of three different training approaches: peer feedback in the Standard, Microteaching Group (SMT) peer-cum-audiotape feedback in the Modified Microteaching Group (MMT) and college supervisor feedback in the Traditional Student Teaching Group (TSP) upon General Teaching Competence (GTC) of teachers measured at different occasions during their pre-service and in-service stages. The samples of the student-teachers was drawn from secondary school trainees studying in B.Ed. The major findings were that peer feedback in the SMT group and peer-cum-audiotape feedback in the MMT group produced equal effect but superior to that of TST group on the development of general teaching competence and competencies in specified skills.


The project was undertaken with the objectives of (i) examining the plan of the training programme. (ii) ascertaining the existence of coordination among the organizations involved in the training programme. (iii) diagnosing the bottle-necks in the process of training particularly with reference to the administration of the programme. (iv) identifying the trend of the programme in terms of its utilization by teachers in different subjects. (v) getting feedback from the trained teacher/teachers undergoing training regarding different aspects of the programme and on the needs problems and perception. (vi) ascertaining the relative use of different components of the
training (vii) evaluating the contribution of radio and correspondence part of the training on the performance of teachers and (viii) evaluating the entire programme in the light of the findings and to suggest improvement.

The findings reported under specific aspects included: 1. Planning: (i) There was need for in-service training programmes in Kerala. (ii) The majority of the trained teachers were not satisfied with the training they received. (iii) The training course in Malayalam was fast deteriorating (iv) There was no comprehensive planning and implementation of the programme. (v) There was no scope for using the feedback from trained teachers to improve the programme from year to year. II. Organization: (i) The coordination among the State Institute of Education (SIE) and the All India Radio (AIR) for science and mathematics and the SIE the AIR and the Central Institute of Indian languages (CIIL), Mysore for Malayalam courses was deteriorating. (ii) The organization of contact courses also suffered from lack of planning. (iii) The duration of the contact programme was inadequate (iv) There was considerable delay in the supply of learning packets to the trainees and there was no monitoring effect on the training programme. (v) The trainees were left to themselves for clearing their doubts. III. Learning Materials: (i) Learning packets, especially in science were the most useful part of the programme but they needed a lot of improvement (ii) Though radio lessons were interesting and useful all the trainees did not listen to all the programmes and the participants felt that the learning experiences in the contact programmes were inadequate. IV. Evaluation: (i) There was no effort to evaluate the project periodically. (ii) The grades awarded to the trainees were independent of the radio lessons resulting in the redundancy of radio components. The majority of the trainees felt that there should be a
proper examination at the end of the course. V. Responses of the Trainees: (i) A majority of them to learn the topics which they had not studied earlier. (ii) They felt that it improved the academic achievement of their students. (iii) They wanted that the learning packets should contain diagrams, figures, charts, illustrations, examples and more units of learning. (iv) They felt that the duration was too short though the programmes were interesting and useful. (v) They wanted that arrangements should be increased and should be interspersed during the training period rather than at the end of the programme.

**SCERT** (Andhra Pradesh) (1982) Conducted an evaluation Study of In-service Training of Secondary School Science Teachers in Improvisation Techniques in Science Teaching Courses of the Colleges of Education (1982). The objectives of the study were (i) to study the relevance of course content of the in-service training programme. (ii) to study the relevance of activities of the in-service training programme to the objectives of the training programme. (iii) to study the relevance of improvisation techniques being taught in the in-service training programme and (iv) to study the attitude of in-service teachers towards improvisation of science equipments for science teaching in secondary schools.

The findings of the study were: (i) More than 60 percent of the participants felt that the course was good and acquainted the teachers with new developments in science. (ii) Most of the participants felt that there adequate staff and individual attention were not given during the course. (iii) The participants felt that they could not attend the course properly because of too much interference from the education officers and other supervisors.
(iv) The participants felt that the course was theoretically relevant but practically many of the problems of science teaching in the classroom were not taken into account. (v) The participants felt that the teacher-educators did not consider them as equals but treated them as students. (vi) The participants had a feeling that even the teacher-educators were not fully acquainted with modern concepts and development in science. (vii) Most of the teaching activities being practiced by the participants in one way or another. (viii) Improvisation of the science apparatus was a good activity but it was not fully relevant to the environmental set-up of the schools in which they worked.

Raina (1981) has conducted a study on “A factorial study of the personality, attitudes to teaching and creativity of in-services and student teachers belonging to three subject areas.” The pre-service science arts and commerce teachers differed significantly in their attitude to teaching. The in-services teachers were highest on the factors of intellectuality self-strength environmental sensitivity individuality initiative and artistry as measured by the test of creative potential. The pre-service teachers were highest on intellectuality self-strength, environmental sensitivity individuality initiative and artistry.

SCERT (1980) (Andhra Pradesh) conducted a study on Evaluation of In-service Training of Secondary School Teachers in Science Teaching Centres attached to the Colleges of Education in Content and Methodology. The study was done to evaluate the in-service training programme run by the science teaching centres with respect to academic and administrative aspects. The training programme of one month duration. The findings of the
The proportion of participants who understood the concept principles and facts was 50 percent in physics, 64 percent in chemistry and 45 percent in biology teaching. (ii) Participants indicated that many of the concepts were dealt with in an impressive manner in physics and biology. (iii) The demonstrations were conducted in different units satisfactorily. (iv) The explanatory aids were not used satisfactorily in the classroom in biology teaching. (v) Many of the participants felt that the laboratory techniques employed during the training programme were useful to improve professional competence. (vi) The course was useful in teaching in the classroom and many simple techniques were given to make improved apparatus for teaching science. (vii) The duration of the course was quite short. (viii) According to participants time devoted to practical was not satisfactory. (ix) Though the course had high academic value, the syllabus prescribed for teaching in the schools was very heavy. Some of the topics prescribed in the syllabus in biology were not relevant to the age group of the students. (x) Several activities and projects undertaken during the training programme made many participants enthusiastic to undertake such projects in their schools also.

Mama (1980) conducted a study of the impact of In-service Education on Teachers in the State of Maharashtra. The main objectives of the study were (i) to examine the concept of in-service education (ii) to find out the academic and recreational reading habits of teachers (iii) to find out the opinion of teachers on in-service programmes (iv) to examine the facilities offered to teachers to attend in-service education programmes. The survey method was used for the study. The tools used for data collection were questionnaires prepared for the principals of Colleges of Education and
the principals and teachers of secondary schools and an interview schedule for experts in education and principal and teachers of secondary schools. The final sample included fifty principals of colleges of education with 5 percent of the principals in secondary schools and 50 percent of the teachers in each of the selected schools.

The main findings of the study were: (i) of the fifty-one teacher education colleges in the State, twenty-six ran extension centres (ii) Little importance was attached to in-service education (iii) The colleges of education conducted a variety of programmes most of which dealt with subject matter, planning of tests, evaluation and audio-visual aids (iv) No effort was made to involve teachers in the planning evaluation and follow-up of in-service programmes (v) The school teachers had no access to the college libraries except while participating in-service programmes. (vi) in-service programmes were run as weekend courses (vii) Adequate communication did not exist between the colleges of education and the secondary schools (viii) Control of in-service programmes was in the hands of the school principals (ix) The teachers were sometimes prevented from attending in-service programmes by the principals (x) The concept of in-service education was not clear to the teachers.

Singh (1980) conducted a critical study about the programme of the pre-service and In-service Education of Teachers of Higher Education in India. The objectives of the study were: (i) to study the needs of pre-service and in-service education programmes as felt by the university teachers. (ii) to study the objectives of the pre-service and in-service education programmes as they were being conducted by various institutions (iii) to
study the pre-service and in-service programmes in terms of their types duration syllabi and methods of teaching (iv) to seek the opinions of the participants regarding the evaluation of their performance in the programmes and the usefulness of the programmes and (v) to develop a syllabus for training teachers of higher education.

The major findings of the investigation were: (i) the programme was helpful for the pre-service, in-service and untrained teachers. (ii) The main aspects helpful to them in their situation. (iii) Student desired more autonomy for decision-making and interpersonal cooperation of support for effective group action in the teaching learning situations. (iii) Three basic elements which emerged into a characteristic pattern of tenth grade actual classroom could be described as (a) the individually interpersonal meaningful quest for personal cognitive outcomes rather than emphasizing on group achievement in the imposed formal group structure. (b) the teacher defind learning directions for group actions and (c) the apathetic attitude towards the reality orientation of social ideological awareness which was not conducive to striking a balance between theory and practice during the teaching-learning process. (iv) The classrooms of mathematics were generally characterized as co-operative supportive milieu interpersonally: The classrooms were oriented to the desired accomplishment of group takes and the clarification of personnel experience. (v) The authenticity aspect of tenth grade actual classroom was significantly related to autocratic-democratic has kindly evading responsible etc. characteristics of the teachers classroom behavior. (vi) An attempt was made to study the fourteen dimension of the teacher’s morale in general. Out of the 42 relationships
tested only one between productivity and material and equipment dimension of the teacher’s moral was significant.

**Gupta** (1979) has conducted a study of the in-service Training needs of the Secondary Teacher Education. The objectives of the study were: (i) to study the relationship between the qualification and the in-service education proneness of secondary teacher-educators (ii) to study the relationship between the professional experience and the in-service education proneness of secondary teacher educators (iii) to identify the type of in-service education courses preferred by secondary teacher-educators in view of the emerging curriculum changes at the school level and the corresponding changes in the teacher-education curriculum and (iv) to identify the specific units under each of the curricular areas identified at (iii) above and (v) to study the congruence between the qualifications and the instructional allocation.

The findings of the investigation were: (i) There was some measure of association through not very strong between the qualifications of secondary teacher-educators and their in-service education proneness (ii) There was a small measure of association between the teaching experience and the in-service education proneness of teacher-educators (iii) In view of the emerging curricular changes at the school level and subsequently at the teacher-education level the in-service education course required by secondary teacher-educators were identified: (a) socially useful productive work (b) vocationalization (c) working with the community (d) non-formal education and (e) pedagogical and methodological subjects (iv) By and large there was congruence between the qualifications and the instructional
allocation except in the case of those secondary teacher-educators who were involved in the teaching of Methodology of Teaching Geography as they did not have any degree in geography.

**Devaraj and Pavanasi**m (1972) conducted a study on the In-service educational needs of secondary school teachers. The objectives of the study were: (i) to find various In-service educational activities in which the teachers participated, (ii) to find the reactions of the teachers to the various programmes and (iii) to get the suggestions they have to offer with regard to the conduct of such programmes.

The findings were that majority of the teachers preferred seminars as the means of In-service training Programmes for teachers. Other Programmes receive only secondary rank. Only four programmes—seminars, courses, workshops, audio-visual services were popular among the teachers. Summer holidays seem to be the best period for In-service education. Teachers prefer short terminal vacation period and week ends also for this work. Headmasters should supervise the follow up work undertaken by teachers who had undergone training. Some preferred changing the methods according to the classroom situation and facilities available in the school. According to the views expressed In-service education in the teaching of language should get highest priority. Next in rank came elective subjects and science.

**State Institute of Education** (Maharashtra) conducted a study of the in-service training needs of Headmasters of rural primary schools in Poona District Poona (1971). The main objectives of the study were to find out the in-service training needs of headmasters in their academic and
administrative work and to collect data for preparing a programme of in-service education and training for Headmasters. The importance of the study was that more than 50% of the Headmasters needed practical knowledge in general science. One third of them desired to have knowledge in mother tongue grammar and Mathematics. The percentage of teachers desiring to get knowledge of special methods in Hindi was higher than that of other subjects. The Headmasters were asked to denote the areas in which they needed sufficient knowledge so as to guide their assistants. The four areas were given in the order of preference (i) Improvement of present examination system (ii) Problems of schools discipline (iii) Methods of teaching different subjects and (iv) Presentation of teaching aids. The Headmasters thought that the knowledge regarding the maintenance of the five records were essential (i) General (ii) Examination results (iii) School repair records (iv) Log book (v) Annual report. The Headmasters felt that these subjects should be included in the in-service teacher education programme. (i) HM’s powers and duties (ii) Relation between the Headmaster and his assistants (iii) School inspection and its methods (iv) Relation between school community and workers in educational field (v) School organization: To an open ended question regarding their difficulties more than 10% Headmasters reported the difficulties such as (i) Inadequate school equipment (ii) Inadequate building (iii) Non-cooperation of parents (iv) In-adequate staff (v) Non-cooperation of local leaders (vi) Non-cooperation of assistants and (vii) Non-availability of subject teachers.

Shankar (1969) Conducted a study on the impact of extension services department on school improvement in Haryana department of Education. The study revealed that (i) 70% of headmasters and teachers
thought that the extension services proved useful in making the knowledge up to date and increasing the efficiency of teachers and in changing their attitudes and outlook towards teaching (ii) The extension Services work enabled the teachers to start experimental projects and also to coordinate the work of different schools (iii) A fair majority felt that the various activities undertaken were organized by keeping the needs of schools in view and thereby helping heads and teachers in making classroom teaching effective (iv) As a result of extension programmes, heads and teachers started taking more interest in school work by organizing subject clubs, projects (v) Teachers generally did not use teaching aids available in the extension department (vi) Teachers read publications of the extension department with interest and found them useful (vii) Teachers were not interested in seminars (viii) The extension department failed in ‘follow up’ work as they were unable to chalk out any concrete programme to assess their activities (ix) Heads, teachers and coordinators felt that the expenditure of the extension service work did yield sufficient return in terms of improvement in schools (x) With regard to making the department more useful and effective many felt that heads and teachers should be made aware of the facilities available and programmes drawn keeping in view the needs of local schools which could be known from heads and teachers (xi) There was a greater need for more follow up programmes to assess the implementation of new ideas, methods and techniques.

In his study on Growth and Organization of In-service Programmes in India and its Impact on Secondary Schools (1966) Srivastava tried to focus on the history of in-service teacher education in India from its inception till date and gathering its material from scattered sources. It had revealed that
the attitude of the teachers towards the profession as well as towards the extension programmes stabilized after attending four extension programmes. The improvement was rapid.

Layug (1961) revealed in his normative study of the five year in-service education programme of public elementary school that administration and supervision, teacher-pupil relationship and public relations were among the most important subjects treated in the in-service education programmes. Among the different techniques used were teacher’s meetings, inter-school visitations, informal discussions, demonstration classes, seminars and open forums etc.

2.5 Studies in Abroad

In early work on teacher productivity, researchers estimated education production functions by regressing aggregate student achievement levels on measures of teacher training and various other controls using cross-sectional data. A subsequent generation of studies used student-level two-year test-score gains and richer sets of teacher training variables to evaluate the impact of teacher training on student achievement. The state of the literature through the year 2000 has been extensively reviewed by Wayne and Youngs (2003) as well as by Rice (2003), Wilson and Floden (2003), and Wilson, et al. (2001). Rather than duplicate previous surveys we highlight new research findings over the last half-dozen years.

While some recent studies of the determinants of teacher productivity continue to employ the gain score approach (Aaronson, et al. (2007), Hill, et al. (2005), Kane, et al. (2006)), the bulk of recent research has shifted away from this methodology. The gain-score studies rely on observed student
characteristics or “covariates” to account for student heterogeneity. However, they cannot control for unobserved characteristics like innate ability and motivation. There is evidence that better trained and more experienced teachers tend to be assigned to students of greater ability and with fewer discipline problems (e.g., Clotfelter et al. (2006), Feng (2005)).

Given this positive matching between student quality and teacher training, the gain-score studies’ inability to control for unobserved student characteristics would tend to upwardly bias estimates of teacher value-added associated with education and training.

The recent availability of longitudinal administrative databases has brought forth a new generation of studies that seek to ameliorate selection bias by controlling for time-invariant unobserved student heterogeneity via student fixed effects. In the last six years, eight studies of teacher productivity in the U.S. have employed this approach. An alternative method of avoiding selection bias is to either randomly assign teachers to students (as in the Tennessee class size experiment) or to exploit situations where there is an exogenous change in student assignments to teachers or in teachers to training. Five other recent studies exploit either experiments with random assignment, situations where there is “apparent random assignment” or “natural” experiments where assignment is based on exogenous factors.

No matter what the methodology, nearly all of the recent studies of teacher productivity include some measure of teacher experience, which serves as a proxy for on-the-job training.

Results for elementary math are about evenly split between positive and insignificant effects of teacher experience on student achievement. In
contrast, all but one of the eight recent studies that separately analyze elementary reading find that student achievement is positively correlated with teacher experience. At the middle school level the findings are essentially reversed.

**Angela Paladino** (2008) has studied ‘Creating an interactive and responsive teaching environment to inspire learning’. Teaching students to understand, disable and solve problem is one of the largest challenges educators face in undergraduate marketing education. By teaching philosophy is controlled on the creation of an interactive learning environment. This encompasses problem – based teaching and collaborative learning to forster discussions between students and between faculty members and students. This setting is largely supported by the creation of technological resources and the design of feedback system. Feedback provides students with the opportunity to range their understanding of the course and to improve.

**Douglas N. Harris and Tim R. Sass** (2007) have studied ‘Teacher training, Teacher quality and student achievement’. In this they investigated the effects of various types of education and training on the ability of teachers to promote student achievement. Previous studies on the subject have been hampered by inadequate measures of teacher training and difficulties addressing the non-random selection of teachers to students and of teachers to training. We address these issues by estimating models that include detailed measures of pre-service and in-service training, a rich set of time-varying covariates, and student, teacher, and school fixed effects. Our results suggest that only two of the forms of teacher training we study
influence productivity. First, content-focused teacher professional development is positively associated with productivity in middle and high school math. Second, more experienced teachers appear more effective in teaching elementary math and reading and middle school math. There is no evidence that either pre-service (undergraduate) training or the scholastic aptitude of teachers influences their ability to increase student achievement.

Studies that include middle school consistently find positive effects of teacher experience on math achievement whereas the findings for the effects of experience on middle school reading achievement are evenly split between positive and insignificant correlations. The three studies of high school teachers yield conflicting results. Aaronson, et al. (2007) and Betts, et al. (2003) find no significant correlation between teacher experience and student achievement while Clotfelter, et al. (2007) find strong positive effects. One difference in these studies is that Clotfelter et al. utilize course-specific end-of-course exams while the other studies rely on more general achievement exams.

As discussed by Rockoff (2004) and Kane, et al. (2006), the estimated effects of experience may be biased if sample attrition is not taken into account. For example, less effective teachers might be more likely to leave the profession and this may give the appearance that experience raises teacher value-added when, in reality, less effective teachers are simply exiting the sample. Alternatively, selection could work in the opposite direction; more able teachers with higher opportunity costs may be more likely to leave the profession, leading to a spurious negative correlation between teacher experience and student achievement. One method of
addressing the attrition issue is to include a teacher-specific effect, to control for unmeasured teacher ability, along with the experience measures. The teacher-specific effect should purge the influence of teacher time-invariant ability on experience, yielding unbiased estimates of the specific effect, only two of the eight panel data studies, Hanushek et al. (2005) and Rockoff (2004), employ teacher fixed effects in addition to student fixed effects. Both of these studies analyze only a single school district. In our work we are able to include both student and teacher fixed effects using data for the entire state of Florida.

In addition to experience, the other commonly measured aspect of teacher training is the attainment of graduate degrees. Nearly all of the recent panel-data and random-assignment studies include a measure of post-baccalaureate degree attainment, typically whether a teacher holds a master’s degree. Except for positive correlations between possession of a masters degree and elementary math achievement found by Betts et al. (2003), Dee (2004) and Nye, et al. (2004), recent research indicates either insignificant or in some cases even negative associations between possession of graduate degrees by a teacher and their students’ achievement in either math or reading.

In contrast to experience and possession of advanced degrees, the pre-service undergraduate training of teachers has received much less attention in the recent literature. Two studies, Aaronson, et al. (2007) and Betts et al. (2003) consider the effect of college major on later teacher productivity, but fail to find a robust relationship between undergraduate major and the impact of teachers on student achievement. Three studies, Kane et al. (2006), Clotfelter et al. (2006, 2007a) consider general measures of the
quality of the undergraduate institution attended and find little or no relationship to teacher productivity in elementary or middle school. A fourth study, Clotfelter, et al. (2007b) does find a positive and significant relationship between the prestige of the undergraduate institution and productivity of high school teachers. Kane et al. (2006) also analyze the relationship between undergraduate grade point average (GPA) and teacher productivity in elementary and middle school. As with the other measures of undergraduate education, they find no significant relationship between GPA and subsequent teacher performance.

There are at least two shortcomings of recent estimates of the impact of undergraduate education on teacher productivity. First, recent work has relied on relatively gross measures, like college major, which may obscure significant variation in college coursework. Second, none of the recent studies that include measures of undergraduate training control for the pre-college ability of future teachers. Thus, for example, a positive observed correlation between undergraduate institutional prestige and future teacher productivity could mean that institutional quality enhances the productivity of future teachers or simply that more able students are accepted into elite institutions and individual ability is determinative of productivity as a teacher.

Chang P.T. and John P. Downes (2002), in their study ‘In-Service Training for the Math Teacher of the 21st Century’ observed that traditional teaching methods are inadequate to effectively educate a changing student population. The effective mathematics teacher of the 21st century must have a ready grasp of both basic and advanced mathematical concepts so as to be able to educate the advanced and the remedial student, a functional
understanding of technology, be adept at instructional methods, have a ready knowledge of the applications of mathematics in numerous fields and disciplines, and be able to establish a relationship with the student, so as to create an atmosphere of trust and friendly study environment.

Saeed (2000) discussed the various aspects of initial and in-service training of school teachers in Federal Republic of Germany, France and United Kingdom. According to him, in-service training helps teachers to meet efficiently the contemporary demand on their knowledge of subject matter. Teaching skills and to ensure that schools can fulfill their mandate to educate children. In United Kingdom, the aims of in-service training as laid down in the legislation are: (a) to enable teachers to reflect and develop their teaching practice throughout their professional life. (b) to support teachers in the preparation and implementation of their individual school development plan. (c) to support teachers in the implementation of curricular and other reforms in the education services and (d) to prepare teachers to assume additional responsibilities associated with specific posts for which they may wish to apply. In England and Wales teachers take part in-service training at any time in their career. The statutory conditions of service provide for all full-time teachers to have at least five working days a year when they are not required to teach pupils. The major areas of in-services training courses of Federal Republic of Germany were (a) a subject area (b) a type of school (c) particular functions (d) particular individuals. Some topics of special emphasis include: nature conservancy and environmental protection, intercultural learning, health education, new technologies and
career counseling. Schools sometimes assess in-school in-service training programmes on the basis of questionnaires completed by participants. In France in-service training programmes are assessed in a variety of ways depending on their content. They affect the careers of the participants in different ways. The participants have to appear in an examination after each in-service training which entitle them to a qualification.

Joint Innovative Project on In-service Training of Primary Teachers undertaken by the UNESCO Regional Officer for Education in Asia and the Pacific (ROEAP). Bangkok under the APEID during 1980-81, analyzed differences in the objectives of in-service education and grouped them in the following categories:

- **Improvement of personal skills.** It covered communication skills content of learning areas, attitude and values towards teaching and the teaching process: commitment and performance standards, knowledge of current issues, broad knowledge of one’s mission in life as a citizen and as a professional.

- **Upgrading of professional competence.** Those related to the teaching / learning process, research orientation, problem solving, curriculum development, planning and development of educational programmes, evaluation and others.

- **Knowledge and teaching of learning areas.** Ethics education, social studies, agriculture, value education and others:

- **Curricular modifications.** Changes due to rising demand brought about by social and technological change:
- **Problem solving.** Areas such as drop-outs, low achievement repetition rates:

- **Developing familiarity with innovative projects:**
  - Operation of management and in-service education programmes and
  - Advancement of individual teacher’s experience as a professional.

**Myers and Simpson** (1997) discussed about revising teaching and professional growth. According to them teaching as professional practice and teachers as professional practitioners and the school as the centre for teacher learning and teaching as investigative problem identification problem solving and a culture of inquiry.

According to him teacher education needs to be re-conceptualized. Instead of being the delivery of ideas, competencies and values to teachers, it needs to be thought of as the helping of to educate they are pledged to serve. To the extent that teaching is professional practice.

**Kiwia** (1994) describes and discusses in-service training course conducted in Tanzania 1984, with the objectives.

- To keep abreast with the developments in the teaching profession
- To cope with knowledge explosion in the teachers’ respective subject areas.
- To fill in the knowledge explosion in the teachers’ professional teaching.
• To refresh teachers in their areas of specialization and indeed to relate their experience and any other interesting development in the course of their individual and group careers.
• To advance the horizons and competence level of those practicing teachers of the sake of not only better performance in the field but also for higher academic awards.

Eraut (1977) has referred to a British Government committee, which suggested that the aims of in-service teacher education are to enable teachers:

• To develop their professional competence, Confidence, and relevant knowledge.
• To evaluate their own work and attitude to conjunction with their professional colleagues in other parts of the educational services:
• To develop criteria which would help them to assess their own teaching roles in relation to a changing society for which schools must equip their pupils; and
• To advance their careers.

On the basis the various reports on in-service teacher education submitted in various international conferences and workshops organized by Commonwealth secretariat. UNESCO and its Asian programme for Educational Innovation and Developing countries of Asia including India have been developed.

• Providing professional training and qualifications to untrained working teachers. Although majority of our teachers are inducted after obtaining a specified initial teacher training still there are some
teachers in certain states who were appointed without any prior training for teaching. For them, there is a legitimate need for providing a first level in – service teacher education program.

- Upgrading the qualifications or serving teachers whose original qualification may have been rendered out of date by educational change and by reforms in the teacher education process. No country in the world can afford to ignore this purpose of in-service teacher education. The process of improvement and change in teacher preparation programmers is continuous. It demands that in-service teacher education activities should always continue to pay attention on this objective.

- Arranging refresher courses particularly to familiarize teachers with modern practices being encouraged in the schools. Every school seeks to improve the competence of teachers in their teaching subject and in practical teaching skills. The need to update teachers in production of teaching materials. Use of audio – visual aid and application of evaluation techniques is widely felt across country.

- Disseminating specific educational innovation such as curriculum change. Introduction of socially useful productive activity and work in schools. Population education and teacher participation in non – formal education of children in deprived sections of society etc.

- Amelioration of quality of educational management and administrations at all levels is an important goal of in – service teachers’ education. This may involve retraining of teachers to enable them to take up new responsibilities outside the classrooms for which their earlier training an experience may not have prepared them.
Improving the quality of teacher education. There is growing emphasis on the needs for continuing training of the teacher educators themselves.

Chilana (1971) conducted a study on the Practices and Trends relating to in-service Education of teachers in Asia.

The objectives of the study were to examine the various Programmes related to the in-service course and to find out the problems of untrained teachers.

The findings were that the Programmes of in-service education of teachers in Indonesia have so far been grated to solve the problem of untrained teachers. There was a need to organize courses for all types of teachers in future. The existing teacher training institutions should discharge their functions in the form of extension service to nearby schools.

Pires (1962) conducted a study on of the in-service Training of Primary School Teachers in Asia. He found out that following objectives are in view one or the other country while organizing in-service education programmes: (i) Upgrading the professional knowledge and competence of teachers. (ii) Extending the general education of teachers. (iii) Enhancing the qualification of teachers in-service. (iv) Providing opportunities for teachers to obtain increments in salary (v) Raising the morale of teachers (vi) Improving public relations (vii) Providing training in community living.

Rellin (1949) in his study found out the following five as most important objectives of the in-service teacher education programmes (i) To
promote professional growth for efficient teaching (ii) To familiarize teachers with subject matter and sources (iii) To stimulate self improvement among teachers (iv) To equip teachers for leadership in the community (v) To orient new teachers to be effective on their jobs.

Therefore, the previous studies have been concentrated on the teacher education and its impact on their performance, the teacher training and its impact on their skills, the teacher training and the impact on the students’ achievement levels etc.. Whereas, the present study aim to impact of in-service teacher training programme under SSA in classroom interaction. For this the research methods, research tool, measurement of variables, sample data collection and the study area have been presented in the following chapter.