

CHAPTER V

SUMMARY, MAJOR FINDINGS, DISCUSSION & SUGGESTIONS

5.0 INTRODUCTION

Continuing professional development and support for teachers in service has been emphasized in various policies and reports. The Kothari Commission 1964-66, reflected the need for continual professional education of teachers to keep pace with therapid advances in various fields of knowledge and evolution of pedagogical theories and practice; the Chattopadhyaya Committee 1983-85, added that if there is to be a change in the approach of teaching, there has to be first a change in Teacher Educationand concurrently in professional education; and the National Policy of Education (NPE, 1986) called for a continuum between pre-service and in-service teacher education.

Following NPE guidelines, the District Institutes of Education and Training (DIET) were established in 1987 to provide on-site support to teachers in the field.

DIETs were established with the objective of organizing pre-service and in-service programmes for elementary school teachers and for the personnel working in non- formal and adult education. Besides developing the quality of teachers through pre- service and in-service programmes, the DIETs were also set up to share the responsibility for making adult education; non-formal education and literacy drive a success.

There have been several researches done in the area of in-service teacher training. Theinvestigator had reviewed nearly eighty- six studies in connection with the present Study. They were mainly related to teacher education, in-service training, in-service teacher training, learning techniques, classroom transactions as well as various functions of DIET. Majority of the reviewed studies focused on the quality of training programmes. Various research journals on education were also referred to collect information regarding new trends in the field of In-Service Teacher Education.

Studies conducted were related to In-Service Teacher Education Programme in the following areas -

- Research studies conducted abroad
- Research studies conducted in India
- Research studies related to DIETs.

5.1 RATIONALE OF THE PRESENT STUDY

After the implementation of the Right to Free and Compulsory Act - 2009, it became mandatory for the State to establish a structure which will support the system to implement the Act in an effective manner. Teacher training would play an important role to improve the quality of education and to bring a positive change in perception of the teachers regarding how to impart such education.

There was a need to bring greater convergence between professional preparation and continuing professional development of teachers at all stages of schooling, in terms of level, duration and structure. The central and state governments are spending a huge amount for the organization of in-service training programmes. This investment demands a good return in the form of quality in elementary education.

The DIETs were formulated mainly with the objective of improving the quality of elementary education. Considerable development has taken place with the establishment of DIETs in the area of elementary education. The DIETs organize in-service as well as pre-service training programmes which help the teachers to enrich themselves in conceptualization of content and methodology.

Also, in order to achieve the goal of quality education, timely assessment and reviewing of the training programmes is needed. The improvement reflected in the quality of elementary education, as a result of various programmes designed by DIETs to support school system, has also to be periodically reviewed.

Existing programmes have come under severe criticism for not addressing the needs of contemporary Indian schools and not preparing teachers who can impart quality education in schools. Their designs/ practices are based on certain assumptions which impede the progress of ideas and professional and personal growth of the teacher.

From the literature Review, several pertinent questions arose: -

Is In-service Teacher Training in consonance with the objectives envisaged by DIETs? Do teachers undergoing the In-service Teacher Training perceive it as useful to their classroom practices? Are they learnt practices used in classroom transaction? Are the themes/areas covered under DIETs in-service training programmes appropriate? Do students perceive some change in teachers' performance? Do students learn better?

In other words, has the In-service Teacher Training under the DIETs impacted teachers, resource persons, head teachers, DIET faculties and DIET Principals? what were their perceptions? what were the problems faced during these in-service training programmes?

Keeping in view these issues, the researcher felt it necessary to address these aspects and to conduct a research Study aimed at studying the different components of the ongoing In-Service Training Programs conducted by DIETs of Gujarat; identifying the problems faced by DIET'S Teacher Educators and DIET Principals in organizing In- Service Training Programs; studying the views and reactions of the functionaries and beneficiaries in terms of In-Service Teachers Training Programs as well as studying the selection procedure of resource persons in the In-Service Teachers Training Programs.

5.2 STATEMENT OF THE PROBLEM.

A Study of organization and implementation of in-service training programmes conducted by District Institute of Education and Training (DIETs) of Gujarat.

5.3 OBJECTIVES OF THE STUDY.

- 1) To study the different components of the ongoing in-service training programmes conducted by DIETs of Gujarat.

- 2) To identify the problems faced by DIET Lecturers / Teacher Educators in organizing in-service training programmes.
- 3) To study the selection procedure of resource persons in the in-service training programmes under DIETs of Gujarat.
- 4) To study the views and reactions of the functionaries and beneficiaries of in-service training programmes in terms of:
 - training needs,
 - training materials and modules,
 - transactional modalities and
 - planning & implementation

5.4 DELIMITATION OF THE STUDY

The Study was delimited to the DIETs of Gujarat and the in-service teachers' training programs organized by these DIETs during 2018-2019 and 2019-2020; and the Functionaries and Beneficiaries (DIET Principals, Lecturers, Head Teachers, Resource persons, Primary school Teachers) who had organized/attended the in-service training programs during these years. Primary schools were limited to schools which were managed by the District Primary Education Committee and Municipal School Boards.

5.5 EXPLANATION OF THE TERMS

- **In-service Teacher Training Programmes:**

In-service Teacher Training programme refers to the training Programmes organized for in-service teachers to refresh their knowledge and update them with respect to new trends in education, new pedagogies and skills for improving the quality of education, conducted by DIETs of Gujarat.

- **District Institute of Education and Training (DIET):**

District institute of education and training are the special institutes which have been established by the Government of India in each district as per the guidelines provided by the MHRD. Presently there are 30 DIETs in the State of Gujarat.

5.6 METHODOLOGY

5.6.1 Design of the study

As the existing status of In-service Teachers Training Programmes from various perspectives was to be assessed on the basis of the responses of Teachers, Resource Persons, DIET Lecturers, DIET Principals and Head Teachers by the means of questionnaire, opinionnaire, and observation schedule for DIET's In-service Teacher Training Programmes, the researcher applied 'Survey Method' in the present Study.

This Study attempts to analyze the ongoing in-service training programmes for elementary school teachers conducted by DIETs.

5.6.2 Population of the study

All the DIETs, Primary school teachers, resource persons, head teachers and the DIET Principals and lecturers in the State of Gujarat formed the population of this Study.

Primary school teachers, resource persons and head teachers consisted of all who had attended the in-service training Programmes; DIET Principals and DIET faculties included principals, lecturers and senior lecturers.

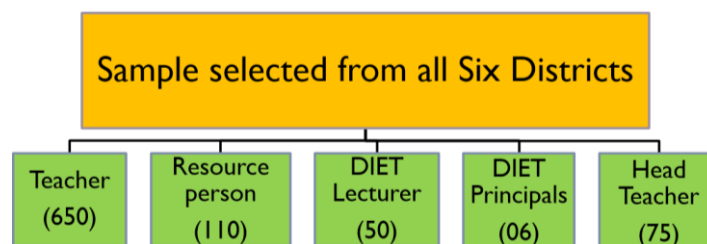
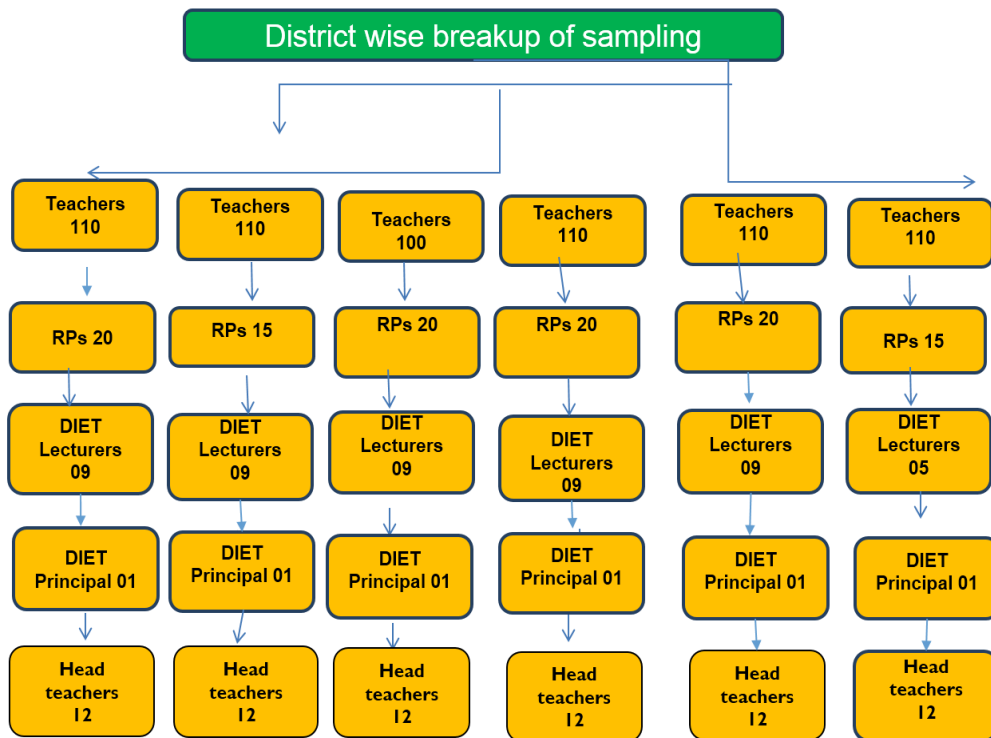
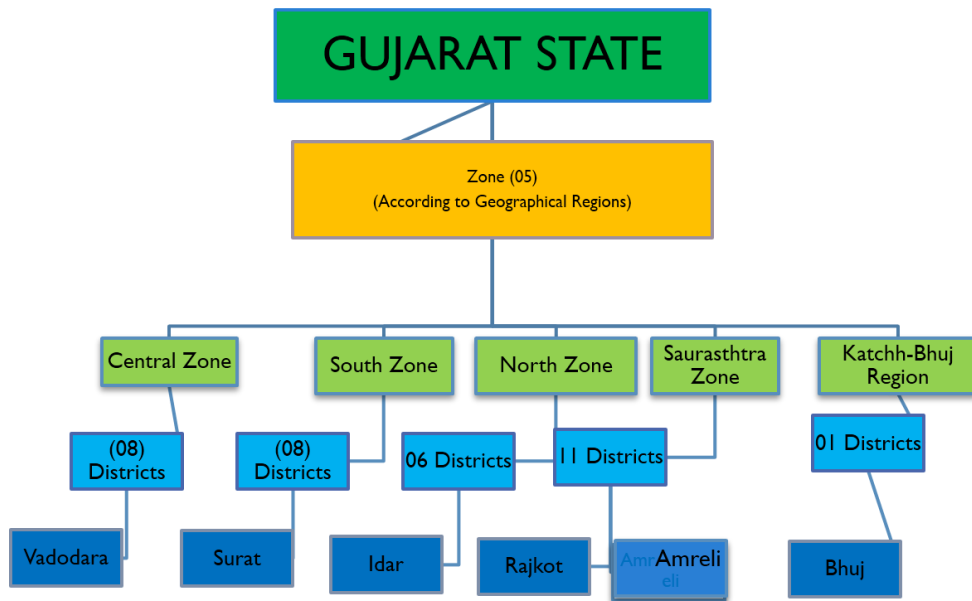
5.6.3 Sample of the study

Researcher divided into five zones as per geographical areas of Gujarat. Out of these five zones, six DIETs were selected randomly, these six DIETs from zone wise were Central zone (Vadodra), South zone (Surat), North zone (Sabarkantha idar), Saurasthrazone (Rajkot and Amreli) and Kachh Region (Bhuj).

In Saurashtra zone there were total 11 districts; so in this zone two DIETs were selected. The researcher selected 06 DIETs for the present Study by considering them as a crosssection of DIETS in Gujarat. For the purpose of data, views and reactions of teachers, resource persons, head teachers, DIET Principals, lecturer & senior lecturers (male and female, rural and urban) from DIETs, government schools, were collected and analyzed.

The sample selected from six districts was given as below:

SAMPLING FLOW CHART:



Tools used for the Study

To collect data following tools were used.

Sr. No	Objectives	Tools used
1.	To study the different components of the ongoing in-service training programmes conducted by DIETs of Gujarat.	Observation schedule of in-service training programs. Questionnaire for teachers
2.	To identify the problems faced by DIET Lecturers / Teacher Educators in organizing in-service training programmes.	Questionnaire for teacher educators (DIET Lecturers).
3.	To study the selection procedure of resource persons in the in-service training programmes under DIETs of Gujarat.	Questionnaire for resource persons Official documents / records
4.	To study the views and reactions of the functionaries and beneficiaries of in-service training programmes in terms of: - training needs, - training materials and modules, - transactional modalities and - planning & implementation	Questionnaire for DIET Principals Questionnaire for DIET Lecturers Questionnaire for Resource Persons Questionnaire for Head teachers Opinionnaires for teachers Questionnaire for Teachers

5.6.4 Data collection of the Study

To collect data from the Central zone i.e. Vadodara, the researcher personally remained present in the in-service teacher training programmes conducted at DIET for teachers and head teachers.

The researcher personally collected data from the Teachers by the means of questionnaire and opinionnaire and from the Resource Persons, DIET Lecturers, DIET Principals and Head Teachers by means of questionnaire.

The data related to various aspects of in-service teacher training programmes organized at DIET were collected by the means of observation schedule.

To collect data from the South zone (Surat), North zone (Idar), Central zone (Vadodara) Saurashtra zone (Amreli and Rajkot) and Kutch Region (Bhuj), the researcher took the help of DIET Lecturers of the concerned districts. The lecturers of the concerned DIETs were made familiar with the objectives of the present study and the nature of data required for the present study.

In addition to this, the researcher explained the importance of the required data, oriented the concerned lecturers about the administration of various research tools adopted in the present study. The researcher also assured all the respondents that the data collected in the present study will be used only for research work and will be kept confidential. Thus, proper care was taken for data collection.

5.7 DATA ANALYSIS

The data collected from the teachers, head teachers, resource persons, DIET lecturers, DIET principals by the means of questionnaire were computed with the help of frequencies and percentages. Some of the qualitative data of questionnaire were also analyzed through content analysis techniques. The data collected by the means of opinionnaire were computed with the help of frequencies, percentages and Intensity Index.

5.8 MAJOR FINDINGS OF THE STUDY

The major findings of the Study are drawn objective wise as follows.

5.8.1 Major Findings related to the Different Components of Ongoing In-service Training Programmes conducted by DIETs of Gujarat-

- 1) The methods used most frequently in the in-service training programs were the lecture method (84%); group discussion (76%); demonstration (56%) and Project method (40%).
- 2) The least used methods in the training programs were found to be seminar (16%); Field visits (32%) and workshops (16%).
- 3) The facility available in all the in-service training programmes was the black/green/white board.

- 4) The other facilities available during the In-service training programmes were LCD projector with speaker (96%), video player (96%), smart board (72%) and flip charts (64%). What was found lacking was the space for other facilities (32%) and other additional facilities required in the training programmes.
- 5) The observers were satisfied with the usage level of all the facilities. The facility used most of the times were the black/green/white board (100%) followed by the LCD project with speaker (88%) and the video player (72%).
- 6) While most of the activities were carried out in all the training programs, the observers were satisfied with the following activities in terms of the frequency of their occurrence i.e. used most of the times - use of teaching-learning aids (84%), exchange of classroom experiences (68%), teachers posing questions (64%), sharing of teachers' reactions/responses (72%), solution of teachers' difficulties (72%), opportunity for practical work (72%), group work (84%).
- 7) With respect to the time spent in inaugural and valedictory session, a small percentage of Observers were not satisfied with the time taken up due to the inaugural and valedictory sessions.
- 8) As per the participant teachers, in terms of the use of different methods in the training programmes, majority responded that the lecture method was the most used in the training programs (64%).
- 9) As per the teachers, the other methods frequently used were demonstration method (58%), practical work (68%) discussion (68%) and group work (66%).
- 10) In terms of the use of ICT enabled T-L methods, only 32% of the primary school teachers mentioned that this method was always used; and a rarely used method was the seminar method as per 56% of the teachers.
- 11) Most of the teachers (60%) responded that in terms of usage of assistive teaching materials/aids during in-service training, the LCD Projector was one of the most frequently used; the other frequently used aid being the Internet/computer (54%).
- 12) The supportive teaching aids used rarely were the white board (30%); flash cards (24%) and narrative figures (12%).

- 13) Majority of the teachers responded that the training Centres were providing the necessary resource support namely Teachers' handbook (74%); workbook for students (58%); low cost teaching aids (56%).
- 14) The other resource supports received were lesson plan formats (42%), video cassettes (48%), audio cassettes (38%), question banks (38%), newsletter (20%), journals (20%) and other required resources.
- 15) Majority of the primary school teachers (56%) agreed that instructions about the training programme were provided during the training.
- 16) Majority of the primary school teachers (44%) were satisfied with the training venue.
- 17) In terms of the use of audio-visual aids during the training programmes, majority of the teachers (76%) responded that audio-visual aids were being used during the training programmes.
- 18) Majority primary school teachers (78%) agreed that training programmes were being organized as per the schedule.

5.8.2 Major Findings related to the Problems in Organizing In-service Training Programmes

- 1) Majority (78%) of the teacher educators were not facing any difficulty in selecting resource persons whereas 22% of them were facing difficulties in selecting resource persons.
- 2) Few educators were facing difficulties in selecting resource persons due to training venue being located far away (12%), less honorarium (12%), unavailability of experts for some topics (6%) and refusal from the resource persons due to lack of time (6%).
- 3) Majority of the respondent teacher educators (56%) were not facing any difficulties in organizing training programmes.
- 4) Many Teacher Educators (44%) however were facing difficulties in organizing training programmes.
- 5) Majority (62%) of the respondent teacher educators mentioned that they found it convenient in organizing the training programmes at venues other than the DIETs.

5.8.3 Major Findings related to Selection of Resource Persons for the In-service Training Programmes-

- 1) Subject specific Resource Persons are selected on the basis of their educational qualifications with well-designed eligibility criteria.
- 2) It was necessary to have a degree in Education – B.Ed. to qualify as subject specific Resource Person.
- 3) The candidate applying for Resource Person must have specified number of years of teaching experience.
- 4) Teachers who possess Post graduate degree in Education – M.Ed. could be exempted from the requirement of teaching experience.
- 5) Candidates were required to be techno savvy.
- 6) Teachers associated with the development of textbooks, workbooks and aware of the pedagogical inputs needed for activity based teaching, project based teaching, etc can be selected as resource persons.
- 7) Once selected as Resource Persons, they were given the required training to perform their duties efficiently. Resource Persons were trained by KRP (key resource persons) and KRP were trained by MRP (master resource persons).
- 8) Majority (61%) of the Resource Persons responded that resource persons were being selected on the basis of their qualifications
- 9) A large percentage of the Resource Persons (50%) responded that the resource persons were also being selected on the basis of subject mastery
- 10) Majority (95%) of the Resource Persons mentioned that they were getting training topics based on their expertise in the area.
- 11) All (100%) of the resource persons had received training of trainers for giving training to school teachers at DIETs.

5.8.4 Views and Reactions of Functionaries and Beneficiaries

5.8.4.1 Views of DIET Principals

- 1) All 6 (100%) teachers responded that primary education is benefited from the training programmes.

- 2) All 6 (100%) DIET principals were of view that the training programmes did address new trends of education.
- 3) All the six principals responded that training for action research was conducted.
- 4) All 6 (100%) DIET principals mentioned that they had the administrative freedom to organize training programmes based on the training needs of the teachers.
- 5) All 6 (100%) principals responded that it is needed to have centralized organization of in-service training based on the local needs.
- 6) All 6 (100%) principals mentioned that coordination was being done with different departments for in-service training programmes.
- 7) Coordination meetings were conducted for a proper planning of the programs and DIET Principals scheduled these meetings for better planning and organization of the Programs for which there was no fixed number.
- 8) All Principals (100%) were deliberating with teachers before planning the training Programs.
- 9) All 6 (100%) respondent DIET principals were providing guidance to lecturers for in-service training.
- 10) All 6 principals (100%) responded that the DIET Lecturers were given the freedom to plan keeping in mind specific inputs from the need analysis.
- 11) All 6 (100%) DIET principals were monitoring in in-service training.
- 12) All 6 (100%) respondent DIET principals were providing guidance to teachers during in-service training.
- 13) All 6 (100%) principals mentioned that there seemed impact of in-service training programmes at grass root level.
- 14) Regarding suggestions for improvement of training programs, 33% of the principals suggested that training should be provided according to needs of teachers; 17% each suggested preparation of modules before the training; monitoring mechanisms to assess implementation of training in classrooms; action research training and training on innovations.

5.8.4.2 Views and Reactions of Teacher Educators

- 1) All (100%) the teacher educators mentioned that in-service training programmes are useful for increasing primary school teachers' readiness.
- 2) All (100%) the teacher educators mentioned that in-service training programmes are capable of addressing the new trends of education.
- 3) All (100%) the teacher educators mentioned that teachers' training needs were being identified
- 4) Majority of the teacher educators (78%) were identifying training needs of teachers on the basis of research.
- 5) All (100%) the teacher educators mentioned that they were deciding the contents of training well before the organization of training.
- 6) Majority of the teacher educators (94%) were deciding the contents of the training on the basis of identified training needs; 62% were doing on the basis of Government norms.
- 7) Majority of the teacher educators were giving priority to availability of grant (66%) for organizing training programme. After the grant available, they were giving priorities to preparation of training materials (62%), selection of resource persons (62%), and discussion with resource persons (60%).
- 8) All (100%) the respondent teacher educators mentioned that they were developing training modules.
- 9) Most (88%) of the respondent teacher educators were organizing meeting with resource persons for discussing the objectives of training and majority (55%) of them mentioned that meeting with resource persons before the training was useful in pre-planning the entire training programmes.
- 10) Majority (50%) of the teacher educators mentioned that they were informing Resource Persons about their role in the training program via oral discussion.
- 11) Majority (62%) of the Teacher Educators responded that that the use of PPTs was still the most prevalent ICT aid used followed by the Internet and online materials (40%).

- 12) Majority teacher educators (88%) mentioned that the resource persons were getting training topics based on their expertise
- 13) Majority of the respondent teacher educators (56%) mentioned that they were getting an opportunity for evaluation of the training programme via written feedback and via their reactions after the training program.
- 14) All (100%) the respondent teacher educators mentioned that they were required to do pre-preparation before the training.
- 15) Majority (74%) of them were getting enough time for pre-preparation before the training.
- 16) Most (90%) of the teacher educators mentioned that there seemed impact of training programmes at school level.
- 17) Most (82%) of the teacher educators mentioned that they formed Google, Yahoo, WhatsApp groups for continuous discussion with the teachers.
- 18) Most (94%) of the respondent teacher educators were satisfied with the different aspects of the training programmes.
- 19) All (100%) respondent teacher educators mentioned that new knowledge was being received by the teachers.
- 20) All (100%) the respondent teacher educators mentioned that they were providing time to teachers for asking their questions during the training.
- 21) Most (88%) of the respondent teacher educators mentioned that the classroom behavior of trained teachers was being evaluated by using classroom observation during the school visit of DIET faculty (72%) and based on students' achievement (66%).
- 22) Most (88%) of the respondent teacher educators mentioned that training related to how to give training in training programmes was being given to experts.
- 23) Most (94%) of the respondent teacher educators mentioned that the experts came for the training with full preparation.
- 24) All (100%) the respondent teacher educators mentioned that the experts were using varied methods and techniques in training programmes.
- 25) Most (88%) of the respondent teacher educators mentioned that they were receiving cooperation from other staff of DIETs in organizing training programmes and implementing training literature.

- 26) Majority (62%) of the respondent teacher educators mentioned that the DIETs were organizing training programmes on annual planning and budget preparation for the District Organization Team.
- 27) Suggestions of the Teacher Educators for improving the training programmes were organization of need based training programmes (78%) and compulsory attendance of participants (62%) and development of proper monitoring and feedback mechanisms (48%).

5.8.4.3 Views and Reactions of Head Teachers

- 1) Most (97%) of the head teachers mentioned that primary education would benefit from the in-service training programmes.
- 2) Majority of the head teachers (76%) mentioned that teachers were sharing training experiences with other teachers of schools.
- 3) Most of them (80%) responded that the teachers were conducting innovative practices (action research) after receiving training.
- 4) Most (87%) of them mentioned that teachers were using new teaching methods and techniques after receiving in-service training.
- 5) All (100%) head teachers mentioned that they were encouraging and cooperating with the teachers for receiving different kinds of in-service training.
- 6) Majority (69%) of the head teachers responded that there needs to be continuous school level training to improve quality of education whereas, 31% of them were not of such view.
- 7) Most (96%) of them mentioned that they did provide support to teachers for creating lively classroom climate.
- 8) Majority (93%) of them mentioned that the students' learning achievement had increased due to teachers' training.
- 9) Majority (93%) of them mentioned that the teachers' teaching methods had become more effective due to the training.
- 10) Most (89%) of head teachers responded that the teachers were implementing the received training in their classrooms.
- 11) All (100%) the head teachers mentioned that the in-service training programmes were useful for the classroom climate and management.

- 12) Most 73 (97%) of the head teachers responded that space for group works was available in their institute.
- 13) Most (96%) of the head teachers responded that the teachers were using the training materials like training modules/notebooks in their classrooms.
- 14) As per 89% of them, the teachers discuss about the training with them.

5.8.4.4 Teachers' Opinions about the In-service Training Programmes

- 1) Most of the teachers (90%) opined that Teachers were given opportunity for discussion of academic related issues. Intensity index was found to be 2.9
- 2) Most of the teachers (78%) opined that Teachers were given opportunity to pose questions related to their instructional practices always. Intensity index was found to be 2.8.
- 3) 47% opined that in-service training helps teachers always in their professional development. Intensity index was found to be 2.2.
- 4) Most of the teachers (83%) opined that 'Teachers get new knowledge through the training programmes 'always. Intensity index was found to be 2.8
- 5) Most of the teachers (81%) opined that the training was always useful for improving their teaching preparedness. Intensity index was found to be 2.8
- 6) Most of the teachers (70%) opined that audio-visual aids were always used in training sessions. Intensity index was found to be 2.7
- 7) 63% teachers opined that they were always satisfied with the facilities provided during the training. Intensity index was found to be 2.6
- 8) 44% teachers opined that training programs were occasionally helpful for planning activities in the classroom. Intensity index was found to be 1.8
- 9) 50% teachers opined that various methods and techniques were always used during the training program. Intensity index was found to be 2.2
- 10) Most of the teachers (75%) opined that the training program always provided information on diagnosis and remediation for simplifying the difficult contents in teaching. Intensity index was found to be 2.7
- 11) 50% teachers opined that resource persons were well equipped in their respective fields always. Intensity index was found to be 2.3

- 12) Majority of the teachers (88%) opined that the developed training modules were always useful for them. Intensity index was found to be 2.9
- 13) 39% of the respondent teachers opined that the same experts were never called for training. Intensity index was found to be 1.9
- 14) 49% of the teachers opined that the training programs should always be designed keeping in mind the local condition of the school. Intensity index was found to be 2.4
- 15) 40% of the teachers opined that they were not provided the training schedule timely. Intensity index was found to be 1.8
- 16) Majority of the teachers i.e. 68% opined that having external experts in training programs will always make teachers more interested in training. Intensity index was found to be 2.7
- 17) 53% opined that by attending the training programme, their schools were not facing management related issues, occasionally. Intensity index was found to be 2.1
- 18) Most of the teachers i.e. 75% opined that during the training of science/mathematics teaching, various activities like project method, problem solving method were always organized. Intensity index was found to be 2.7
- 19) Most of the teachers i.e. 79% opined that the training was always useful in understanding the teaching points of the subject better. Intensity index was found to be 2.8
- 20) Most of the teachers i.e. 75% opined that as a result of teacher training, children's learning outcomes always increase. Intensity index was found to be 2.7
- 21) Majority of the teachers i.e. 75% opined that based on in-service training, the teacher's teaching work becomes always effective. Intensity index was found to be 2.7
- 22) 73% of the teachers opined that in-service training always plays an important part in creating curricular and co-curricular activity related environment at the school. Intensity index was found to be 2.7

- 23) Most of the teachers i.e. 81% opined that teacher preparedness for continuous & comprehensive evaluation was enhanced through the training programs, always. Intensity index was found to be 2.8
- 24) Most of the teachers, 65%, opined that the hygiene at the training center was always satisfactory. Intensity index was found to be 2.6
- 25) 43% of the teachers opined that their opinions/representations were never considered by the expert during training. Intensity index was found to be 1.8
- 26) Most of the teachers, 83%, opined that the training coordinator was always cooperative. Intensity index was found to be 2.8

5.8.4.5 Views and Reactions of Teachers

- 1) All 650 (100%) respondent primary school teachers mentioned that they were receiving training materials/modules during training.
- 2) Majority (70%) of teachers mentioned that the quality of training materials/modules was good.
- 3) Most of them i.e. 598 (92%) mentioned that the training materials/modules were informative.
- 4) Majority of the teachers (54%) responded that the duration of the training programs was sufficient.
- 5) 72% primary school teachers agreed that they were satisfied with the instructional techniques used by the resource persons.
- 6) 533 (82%) primary school teachers responded that they were satisfied with the presentation of subject by the resource persons.
- 7) 546 (84%) primary school teachers agreed that they were satisfied with the interaction of resource persons with trainees.
- 8) 78% primary school teachers agreed that they were satisfied with the participation of trainees in the training programs.
- 9) 78% primary school teachers agreed that they were satisfied with the content mastery of resource persons.
- 10) 82% primary school teachers agreed that they were satisfied with the use of resources by the resource persons

- 11) More than half i.e. 54% teachers mentioned that the training programmes were as per their need to some extent.
- 12) 94% teachers mentioned that they were using training points in their classroom.
- 13) The teachers mentioned that the in-service training improved their classroom interaction very much (48%).
- 14) Primary school teachers responded that the training programs were beneficial in terms of identification of learning difficulties to some extent (48%).
- 15) Primary school teachers responded that the training programs were beneficial in terms of achieving mastery in giving self-learning assignments, to some extent (48%).
- 16) 48% teachers responded that the training programs were beneficial in terms of use of teaching resources.
- 17) Majority i.e. 56% teachers benefitted from the training given regarding students' evaluation and remedial teaching.
- 18) Most of the teachers mentioned that their understanding increased in the components of understanding in continuous and comprehensive evaluation (98%), gender and gender discrimination (98%), activity oriented teaching (98%) and inclusive education (96%), knowledge of Samagra Sikha and RTE (94%) and school management and record administration (94%).

5.8.4.6 Views and Reactions of Resource Persons

- 1) Most of them (98%) responded that they were getting enough time before the training for preparation about the training.
- 2) All (100%) the respondent resource persons mentioned that they were encouraging teachers to join the training programs.
- 3) All (100%) the respondent resource persons were getting required related resources during the training for giving training to the teachers.
- 4) Most of the resource persons (95%) mentioned that the training related teaching-learning materials were available at the training centers.
- 5) Most (98%) of the resource persons mentioned that they were providing module based training to the teachers.

- 6) Most (98%) of them mentioned that training module being distributed timely among the participant teachers.
- 7) Most (87%) of them were satisfied with the training honorarium provided to them.
- 8) All (100%) the respondent resource persons mentioned that they were receiving required cooperation from the training centers.
- 9) Most (95%) of the resource persons mentioned that adequate space for group works was available at training centers.
- 10) Most (95%) of the respondent resource persons mentioned that the participant teachers did cooperate during the training
- 11) Most (94%) of them mentioned that they were providing training as per the scheduled time.
- 12) Most (98%) of the resource persons mentioned that they were receiving cooperation from the training convener.
- 13) Majority i.e. 91% of the respondent resource persons mentioned that the participant teachers did maintain punctuality of time and were present right from the beginning of the training.
- 14) Most (95%) of them mentioned that adequate time was available as per the training subject.
- 15) All (100%) the respondent resource persons mentioned that the in-service training programmes would benefit primary education primarily in spreading awareness about new trends in education (70%).
- 16) With respect to problems faced, 41% of the Resource persons mentioned that lack of teachers' involvement in training programmes was the major problems they faced.

5.9 DISCUSSION.

The Study conducted has been both a continuation of the past understanding of this area as well as revealed certain facts which the system should give attention to in the future.

The researcher had reviewed total eighty-six studies conducted from 1980 to 2016. The studies conducted during this period have focused on different aspects of the training programs - components, working, facilities available, planning and implementation.

Studies have been conducted in the past in many of these areas and gave the researcher the needed direction while designing the present Study.

The researcher also used multiple ways of acquiring data in order to get a complete understanding of the area that was being researched i.e. the organization and implementation of the in-service training programs. Functionaries and beneficiaries were given questionnaires, Opinionnaires and observation too was done to collect the required details. There was both quantitative and qualitative data taken from the functionaries and beneficiaries. Survey studies conducted in the past too have used triangulation methods to collect data from different sources, via different methods to check consistency of data.

From this Study, it could be inferred that planning was done based on research, data got from the field studies and also on the basis of innovations to make teachers aware of the recent trends. This shows that in-service training programmes were organized with proper planning regarding the content to be transacted as was responded by the functionaries of the system. This finding was found to differ from the findings of **Singh(2013)** who reported that the in-service training programmes were not found to be need based while Butala (1987) found that very few programs focused on modern trends in education. Thus, there may still be instances of programs which were designed without considering the needs of the teachers. Such programs would be disconnected from the needs and requirement and probably not be of much use to the participant teachers.

The findings of the Study revealed that the most practiced method was still the lecture method and learner centric methods were not being used to great extent. The methods which were used not too frequently were demonstrations, group work, seminars, field visits, practical experiments. This finding was supported

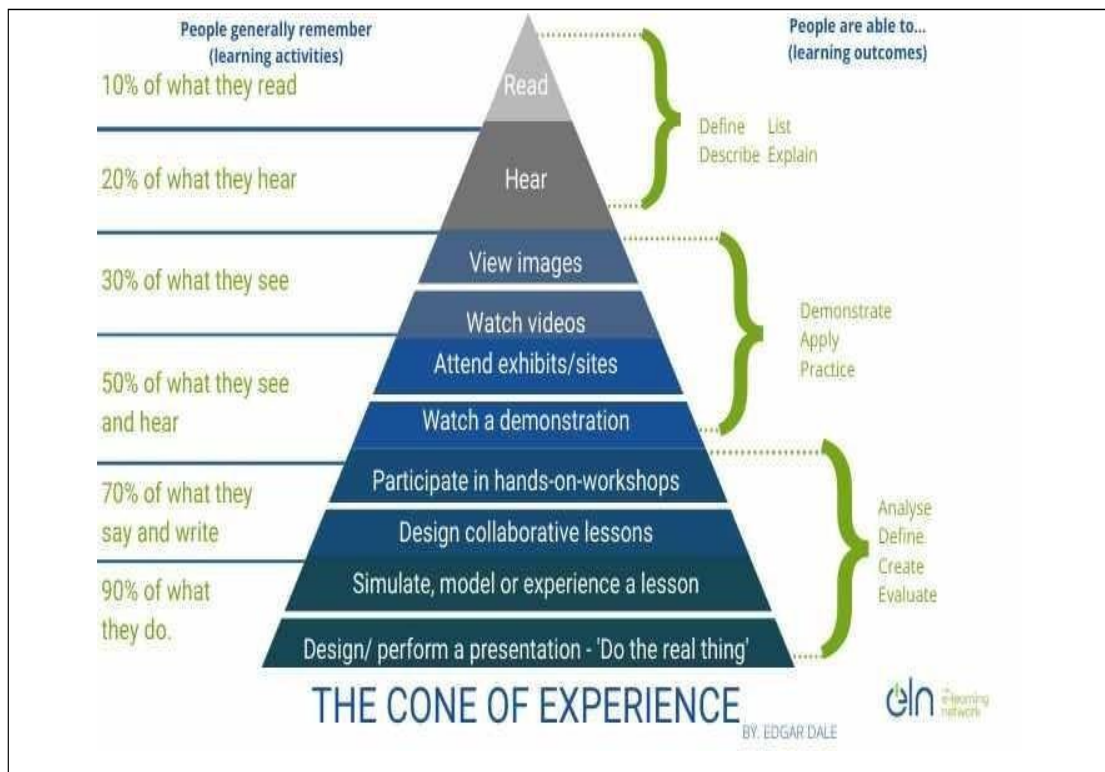
by the studies conducted by Yadav (1999) and Butala (1987). In terms of the use of ICT enabled T-L methods, only 32% of the primary school teachers mentioned that this method was always used; and a rarely used method was the seminar method as per 56% of the teachers.

One of the major findings of this Study was the lack of space and this was reported by both the functionaries and the beneficiaries. Due to this, interactive methods could not be conducted most of the time. Yadav (1999) studied quality of primary teachers in in-service training, and found that about fifty percent teachers expressed that the seminar room was not suitable and no separate rooms were available for group work. Yadav

(1999) studied quality of primary teachers in in-service training. The participating teachers stated that lecture method was mostly used in the training programme (98.4%). This was followed by lecture cum discussion (47.4%). Demonstration, field study, guided self-study and assignment were rarely used. Singh (2013) too found that the in-service training programmes were not found to be need based as well as experience based and the field visits, practical aspects were not found to be included in the training. At the same time, there were studies conducted that found the training methods to be effective and informative (Phalachandra, 1997).

Teachers of today need to be aware of such methodologies (seminars, workshops, project methods, field visits, etc) and students today should not be passive recipients of knowledge; rather they should be actively involved in the learning process. The skills that we want our students to develop would be inculcated only by the teaching methods that are adopted.

Dale (1969) explained “the importance of direct experience for effective communication and learning. Especially for young children, real and concrete experiences are necessary to provide the foundation of their permanent learning”.



Source: Dale's Cone of Experience

In terms of the use of ICT enabled T-L methods, only 32% of the primary school teachers mentioned that this method was always used. This finding has important implication for both the teacher and the student.

In the present scenario and which may be in the future as well, teachers must use ICT to expand their knowledge of the subject; understand how to use it as a teaching tool to design meaningful and personalized learning experiences for the students by catering to their individual learning styles. Teachers can enrich their knowledge and understanding by seeing effective practices on the internet; be part of teacher support groups and learn about new tools and techniques for teaching as well as assessment. Thus, technology and the knowledge of it can completely transform the educational experience of the students; it can help them to be part of learning communities and participate in numerous student activities and virtual experiences all of which can benefit them immensely. Moreover, analysis of the demographic profiles indicated that 85% teachers were teaching in schools in the rural areas; such teachers can be made more proficient in the use of technology to access all the needed resources; they can be part of the teacher groups and benefit from the same too.

With respect to the use of teaching aids/resources, it was found that the most used facility in the training programs was till the white/black board and the LCD Projector. In many programs, the Smart board was also found to be used which indicates that the teachers were given the training to use such important facilities. The use of ppt was found to be very common. Usage of the ICT based teaching aids was not found to be much in use.

The document analysis revealed that a fairly well designed procedure was used to select the resource persons. Teaching experience and qualifications were given importance during the selection procedure; also, the resource persons were trained prior to taking up the role of resource person. Not only this, the Resource persons were informed well in advance and were also called to meet the Teacher Educators for pre-planning of the program.

Majority teacher educators (88%) too had mentioned that the resource persons were getting training topics based on their qualification and experience. However, the researcher found that there were teacher educators who were facing difficulty in selecting resource persons and the reasons were training venue being located far away (12%), unavailability of experts for some topics (6%) – these could be used as feedback during the organization of future programs. Yadav (1999) studied the quality of primary teachers in in-service training and reported that competent resource persons should be employed during training programmes; the Study conducted by Soni (2011) too revealed that in-service training programmes need improvement in the selection of resource persons. Kotreshwaraswamy (2012) suggested that the resource persons should have mastery over the subject and the selection criteria of resource persons should be precise and fair.

This was an important aspect of the training programs as the selection of resource persons would impact the quality of the programs eventually.

With respect to transaction in the training programs, all (100%) the respondent teacher educators mentioned that the experts were using varied methods and techniques in training programmes; 72% primary school teachers agreed that they were satisfied with the instructional techniques used by the resource persons; 82% primary school teachers responded that they were satisfied with the

presentation of subject by the resource persons. All (100%) the respondent teacher educators mentioned that the resource persons were providing time to teachers for asking their questions during the training; Most of the teachers (90%) opined that Teachers were given opportunity for discussion of academic related issues. Shajoin (1996) supported this view, which showed that teachers felt that the programme had helped them to acquire the necessary knowledge regarding the content.

However, the researcher found that the following responses too were given –

- More than half i.e. 54% teachers mentioned that the training programmes were as per their need *to some extent*.
- The *primary school teachers* mentioned that the in-service training improved their classroom interaction very much – *only 48%*
- Primary school teachers responded that the training programs were beneficial in terms of identification of learning difficulties *to some extent (48%)*.
- Many Primary school teachers responded that the training programs were beneficial in terms of achieving mastery in giving self-learning assignments, *to some extent*
- *56% teachers* benefitted from the training given regarding students' evaluation and remedial teaching.

Thus, while the teachers were satisfied with the implementation, probably more time needs to be given for application of that learning. Interestingly, only 54% teachers had responded that the duration of the training programs was sufficient – from this it can be inferred that other teachers found the duration less which could be due to lack of time given to application/practical aspects.

This finding was supported by the study conducted by SCERT (1980) to evaluate the in-service training programme for primary teachers in the selected government and aided teacher training institutions which reported that the participants felt that in-service training programme was good and helped in developing knowledge about new concepts. However, the same Study reported that the participants felt that skills to be used during classroom teaching were

not adequately practiced during the training programmes; adequate stress was laid on the learning of concepts in science rather than teaching of the concepts. (SCERT, 1980)

Acharya (1989) studied the impact of PMOST. The objectives of the study were to study the benefits derived by teacher participants. The major findings were that teachers derived very little benefits in terms of awareness created, perception of the expected role, motivation generated and competence acquired. No innovative practices were evolved during the programme.

With respect to facilities, most of the teachers (63%) opined that they were always satisfied with the facilities provided during the training; Majority of the teacher-educators (94%) were deciding the contents of the training on the basis of identified training needs; majority respondent primary school teachers mentioned that they were receiving training materials/modules during training; All (100%) the respondent resource persons were getting required related resources during the training for giving training to the teachers. This finding was similar to the Study conducted by Rao, M. and Lakshminarayana (1998) who found that almost all teachers were satisfied with the training material supplied, but they were not satisfied with transactional approaches used for imparting the training.

Training should be followed by monitoring to assess the impact of the training on the instructional practices of the teachers. Majority (93%) Head Teachers had mentioned that the teachers' teaching methods had become more effective due to the training. The responses of all six DIET principals showed that there seemed impact of in-service training programmes at grass root level. This result was supported by Yadav (1999), Gafoor (1996), Patel (1999), Patel (2000), Pillai (1992), Prahallada (2003),

Sathyanesan (2001), Subramanian (2001), Yadav (2012), Bardoloi (1990) and Kotreshwarswamy (2012). In this connection, the Study conducted by **Fresko and Chaim (1985)** found that after in-service training, there was high level of confidence among the teachers to teach the curriculum. It was also found that there was corresponding increase in Mathematics skills after in-service training— thus, the training had good impact on both the students and the

teachers. Similar findings were got by Khad, Rubina (2002) who found that training was successful and had a positive impact on teachers as well as on students.

But, the researcher found that only 47% teachers in this Study opined that in-service training helps teachers always in their professional development; 44% teachers only opined that training programs were occasionally helpful for planning activities in the classroom; 48% Primary school teachers responded that the training programs were beneficial in terms of identification of learning difficulties to some extent; 48% teachers responded that the training programs were beneficial in terms of use of teaching resources.

The Study conducted by **Pomuti (2000) and Garet et al. (2010)** too found that the training programs had only a limited effect on teachers and also did not show any significant impact on the students' academic achievement. **Jamil et al. (2011)** in his Study found that some aspects showed a comparatively better effect of training while some other aspects like expertise in subject matter, improvement in knowledge did not show any significant effect of training on the performance of teachers and students. **Rao, K. N. (1994)** conducted a study on APPEP project that noticed transmission loss in in-service programmes which influenced the classroom practices adversely. The study suggested periodic follow - up after the training. **Sharma (2006)** reported that there was a lack of follow-up programme for ascertaining the impact of in-service training programme on teachers' competencies.

Thus, to assess the impact of any training program, periodic visits to schools and observation of all aspects of the schooling process should be done to know the impact of training.

This would give the Functionaries a better understanding of the effectiveness of the training imparted; it would also give them the needed direction for future such programmes.

5.10 SUGGESTIONS

5.10.1 Suggestions for in-service training programmes

On the basis of major findings, the following suggestions were arrived at for the improvement of the in-service training programmes.

- 1) DIET should organize more training programmes addressing new trends in education, in all areas.
- 2) Professional needs of experienced and beginner teachers are different – the training should take into account these differences. Training should not be designed uniformly for all.
- 3) DIETs should devise a methodology to identify the training needs of the school teachers (rural and urban may have different requirements).
- 4) Periodic training would be better for training teachers rather than having long gaps between the programmes – thus, training followed by implementation and re- training in a cyclic approach.
- 5) More emphasis must be given to the inclusion of ICT; this being the need of the day. With ICT, the needs of different kinds of learners can be addressed.
- 6) More emphasis should be given to blended learning modes so that the positive features of traditional and online modes can be taught to the teachers. Given the large number of teachers who came from rural and urban areas, the knowledge of blended learning would help these teachers to access required resources digitally.
- 7) Resource persons should be given training to use contemporary teaching methods and resources.
- 8) Training programs must give training regarding the aspects identified but also have provision for interactive/group-work/practical experiences – this would help the teachers to learn from one another, share best practices and outcomes of action research conducted; the duration of the training programs should be decided accordingly.
- 9) The training program venue should be feasible to all concerned for maximum participation.
- 10) The DIETs should make arrangement for teaching resources other than only whiteboards and audio- visual aids.
- 11) Training programs should be mandatory for all teachers – this way all schools and students will be benefitted.

- 12) The option of online training should be explored for continuous professional development.
- 13) DIETs should organize in-service training programmes in such a way that does not affect the schedule of schools.
- 14) The training programmes should share innovative / best practices of school teachers and the findings of action research during in-service training programmes.
- 15) External experts should be invited during in-service training programmes; this way the teachers will get the benefit of their expertise.
- 16) DIET should invest less time for the inaugural and valedictory functions.

5.10.2 Suggestions for Policy Makers

- 1) The Journals and Newsletter of DIETs should include reports of training programs; research reports to regularly update teachers on contemporary issues; their publication and distribution must be regularized.
- 2) For effective planning, organization and implementation DIET should plan 'during training - post training' activities of the in-service training programmes. A periodic monitoring should be done to assess the effects of training on the teachers and their students; the gaps can be used to strengthen future programs.
- 3) To increase participation of teachers in the programmes, future in service training programmes can be organized via online modes. For this, learning materials can be designed in modular forms and such training packages should be developed at State level by State Resource Persons.
- 4) Resource persons selected should have the required educational qualification, teaching experience as well as good presentation skills – selection process should look into these aspects as well.
- 5) DIETs should provide monthly or quarterly newsletters/magazines/E-newsletters and journals for their respective districts as are done by SCERT/GCERT that provides quarterly newsletter/journal for all schools of Gujarat and Teacher Education Institutions.

5.10.3 Suggestions for further research

In the present Study, the research focused on the in-service training programmes conducted by District Institute of Education and Training (DIETs) in Gujarat.

The following specific suggestions are made for further research -

- 1) A comparative Study of the Training Programs in different States can be conducted – This will help to identify good practices.
- 2) Impact study of training can be done as a longitudinal study
- 3) The selection procedure for resource persons can be studied in greater detail.
- 4) The cascade model of training of resource persons and the inputs given therein can be an important area of research.
- 5) Strategies to ensure greater participation of teachers need to be studied and towards this the efficacy of online modes can be studied.
- 6) A Study to assess the impact of training in different areas of school education –curricular as well co-curricular can be studied.
- 7) Studies in Classroom Management need to be conducted to enable teachers to adopt activity based learning methods effectively.
- 8) The use of online medium can be researched for greater participation – conducting physical training programs can be reduced.
- 9) The views and perceptions of beneficiaries can be an important input for designing future programs and can be an important area of research.
- 10) The quality of education is the collective responsibility of all functionaries involved in this process. Thus training programs organized for all of them can be studied.
- 11) Research studies can be done on the impact of training on Government initiatives and how these are being ensured for eg inclusive education.
- 12) Studies can be conducted on the assessment practices and how to design good question papers that promote higher order thinking capabilities.
- 13) Forums on online teacher communities and teacher collaboration should be studied for their impact on instructional practices.

- 14) Studies on the different skills required in the digital era can be studied – for eg. Communication skill, techno skills, interpersonal skills, etc
- 15) Innovations in education like ‘Learning Outcomes Based Education’ need to be studied. Teachers at all levels need to be aware of such issues.
- 16) Case Studies on good training practices can be conducted and shared with all concerned.
- 17) Impact of in-service training programmes on Tribal teachers can be studied as Gujarat has seven tribal dominated districts and many teachers work in these schools in the tribal areas.
- 18) Present study was confined to Gujarat State only. Similar study may also be conducted in other States of India.

5.11 CONCLUSION

The Study on the Organization and Planning of In-service Training Programs by DIETs of Gujarat addressed different areas namely planning of the program, selection of the resource persons, the components, methods and facilities used in the Programs; classroom transaction and finally the views of the functionaries and beneficiaries regarding different aspects of the in-service training programs.

On many issues, majority of the teachers were satisfied – they found the training materials informative; they were satisfied with the instructional techniques used by the resource persons and the interactive methods used.

Important findings were the predominant use of the lecture method at the cost of other methods; use of traditional resources instead of the digital tools and infrastructural issues which prevented group work and implementation of methods like field study, project method and practical experiences.

On the basis of the analysis, the researcher concluded that instead of two/three days training, a better model would be one in which the teachers were first given inputs regarding effective instructional practices followed by observation of ‘model’ classroom practices which would then be followed by implementation back in their respective schools. Having implemented the lessons learnt and challenges faced, a second round of training can be again implemented to understand and remedy the problems faced by the teachers.

The training sessions should be made as close to the real situation as possible – training in an ideal setting does not give the teachers any understanding of the implementation challenges that may be faced by them in the actual classroom situation.

With so much research and emphasis on individualized instruction, the approach was till found to be one-size-fits-all. The groups size has to be made small so that the training outcomes are achievable. Managing such large groups becomes difficult – only lecture methods will be possible to address such a large audience.

Making online forums/groups will be very important for continuous support to the teachers. Periodic online forums can be created for sharing experiences. Thus, the role of the resource persons need not end with one training program only but is a continuous support. What is taught should be documented and shared via a common medium – documents/handbook/newsletters and also online.

Teaching is a dynamic activity and a very challenging one – periodic training will help teachers to address the daily challenges faced by them.

Training such large numbers can be very challenging given the diversity that exists, but the efforts were found to be commendable.