CHAPTER - V  
FINDINGS, IMPLICATIONS AND SUGGESTIONS

The present chapter is devoted to discuss results of the study reported in Chapter IV. The discussion of results has been given objectives wise. The chapter is also devoted to present findings of the study. Based on these findings, implications of the investigation have been thought over and given. Later on suggestions have been made for further research.

5.1 FINDINGS OF THE STUDY

Following are the major findings of the study:

5.1.1 Effectiveness of In-Service Teacher Education Programmes

- Overall organization from planning, infrastructure and monitoring point of view was found to be effective. Thus, in answer to the first research question, ‘How far the In-service teacher education programmes are effective in relation to their organization?’, it can be concluded that the organization of these programmes was effective.

- Overall content of these programmes from planning, outline and focus point of view was effective. Thus, in answer to the second research question, ‘How far the in-service teacher education programmes are effective in relation to the content provided during the programmes?’ it can be said that the content of these programmes was found to be effective but teachers’ role should be vital in defining the content of these programmes.

- The quality and commitment of resource persons was highly applauded by the teachers but transactional strategies like computerized instructions, brain storming and field trips was not incorporated and opportunity for library works was not given by them. Modern teaching learning equipments like OHP, LCD, T.V., electronic board, teleconferencing, and audio-video cassettes were also not used by them. Thus, in answer to the third research question , ‘How far the In-service teacher education programmes are effective in relation to the transactions by resource persons?’ it can be said
transactions by resource persons from the point of view of quality and commitment were effective but the transactional strategies like computerized instructions, brain storming, library works, field trips and modern teaching learning equipments like OHP, LCD, T.V., electronic board, teleconferencing, and audio-video cassettes were not used by the resource persons effectively.

- The quality of modules provided was good and it was supplied time to time. Thus, in answer to the fourth research question, ‘How far the in-service teacher education programmes are effective in relation to material (modules) provided?’, it can be said that the in-service teacher education programmes were effective in relation to material (modules) provided.

- Although almost all the teachers (90-100 %) marked that they were aware of the objectives of these programmes, but actually they were not as no teacher could mention all the objectives of these programmes. That means although they were satisfied with the attainment of objectives but they should be made aware of the objectives of these programmes.

5.1.2 Impact of In-Service Teacher Education on Professional Development of Teachers and Class Room Transactions

- It can be concluded that these programmes had a positive impact on the professional development of the teachers but still only a few teachers were motivated enough to undertake meaningful innovations and utilize multimedia techniques. Thus, in answer to the fifth research question, ‘What is the impact of in-service teacher education programmes on the professional development of the teachers?’; it can be said that the in-service teacher education programmes had a positive impact on the professional development of the teachers.

- It can be concluded that these programmes had a positive impact in certain areas like class- management and evaluation of students. But areas like methods of teaching and handling audio visual aids are still out of this positive impact. Thus, in answer to the sixth research question, ‘What is the
utility of in-service teacher education programmes for class-room transactions?’, it can be said that the in-service teacher education programmes had a positive impact on the class-room transactions except for methods of teaching and handling of audio visual aids.

5.1.3 Perception of Head Teachers regarding the Effectiveness of In-Service Teacher Education Programmes

- The In-service teacher education programmes, as perceived by the HTs, were effective from the point of view of its organization, quality of content, module provided and had positive impact on the class room transactions and professional development of teachers. Thus, in answer to the seventh research question, ‘What is the perception of head teachers regarding the effectiveness of in-service teacher education programmes?’, it can be said that the In-service teacher education programmes, as perceived by the HTs, were effective from the point of view of its organization, quality of content, module provided and had positive impact on the class room transactions and professional development of teachers.

5.1.4 Impact of In-Service Teacher education Programmes on the Achievement of Students

- For Class 1, from pre test to the mid test significant improvement is evident in all the subjects along with overall attainment except for Punjabi writing. From mid test to post test the significant improvement is evident only in Punjabi reading, Mathematical Tables and English Conversation and from pre test to post test significant improvement is seen in all the subjects along with overall attainment. Thus, the null hypothesis $H_1$ that there will be no significant difference between test results of achievement of students of class 1 in Punjabi reading, Punjabi writing, Mathematical problem solving, Mathematical tables, English reading, English writing, English conversation and in overall achievement at three occasions viz. pre test, mid test and post test is partially retained/rejected.
• For Class 2, from pre test to the mid test significant improvement was evident in all the subjects along with overall attainment except Punjabi writing but the true achievement from mid test to post test level was there only in English Conversation. From pre test to post test significant improvement was seen in all the subjects along with overall attainment. Thus, the null hypothesis $H_2$ that there will be no significant difference between test results of achievement of students of class 2 in Punjabi reading, Punjabi writing, Mathematical problem solving, Mathematical tables, English reading, English writing, English conversation and in overall achievement at three occasions viz. pre test, mid test and post test is partially retained/rejected.

• For Class 3, from pre test to the mid test significant improvement was evident all the subjects along with overall attainment except Punjabi reading and writing, but the true achievement for students of class 3, from mid test to post test level, was there only in English conversation. From pre test to post test significant improvement was seen in all the subjects along with overall attainment. Thus, the null hypothesis $H_3$ that there will be no significant difference between test results of achievement of students of class 3 in Punjabi reading, Punjabi writing, Mathematical problem solving, Mathematical tables, English reading, English writing, English conversation and in overall achievement at three occasions viz. pre test, mid test and post test is partially retained/rejected.

• For class 4, except Punjabi reading and writing the true achievement along with overall attainment was there in all the subjects from pre test to Mid Test level. From mid test to Post test significant improvement of the students of class 4 was evident only for Mathematical Tables, English Reading and writing, and Hindi Reading and writing. For class 4, except Punjabi reading and writing the true achievement along with overall attainment was there in all the subjects from Pre Test to Post Test. Thus, the null hypothesis $H_4$ that
There will be no significant difference between test results of achievement of students of class 4 in Punjabi reading, Punjabi writing, Mathematical problem solving, Mathematical tables, English reading, English writing, English conversation and in overall achievement at three occasions viz. pre test, mid test and post test is partially retained/rejected.

- For Class 5, from pre test to mid test significant improvement is evident in Mathematical problem solving, English conversation, Hindi reading and writing along with overall attainment. From mid test to post test significant improvement is evident in Mathematical Problem Solving, English Conversation, Hindi Reading and Writing along with overall attainment for the students of class 5. From pre test to post test significant improvement is evident in Mathematical Tables, English Writing and Conversation, Hindi Reading and Writing along with overall attainment for the students of class 5. Thus, the null hypothesis $H_0$ that there will be no significant difference between test results of achievement of students of class 5 in Punjabi reading, Punjabi writing, Mathematical problem solving, Mathematical tables, English reading, English writing, English conversation and in overall achievement at three occasions viz. pre test, mid test and post test is partially retained/rejected.

5.2 EDUCATIONAL IMPLICATIONS

It is expected that the findings of the present study will have significant implications in the field of Education as they have brought forth wide ranging issues in diverse ways in particular for teachers, head teachers, teacher educators, planners of education, administrators in the field of education and in general for the parents of explicitly elementary school students. Thus, some of the implications of the present study are given below:

1. Authorities should make teachers’ role vital in defining the content of in-service teacher education programmes.

2. These programmes should not be conducted during teaching days.
3. The resource persons at all levels wherever teacher education is imparted should have mastery over the subject of their respective field. The selection criteria for the appointment of these persons should be very rigorous and transparent.

4. The resource persons should be trained to use of modern teaching learning equipments like OHP, LCD, T.V., Electronic Board, Teleconferencing, and Audio-Video Cassettes.

5. Opportunities for field trips and library visits should be given to the teachers to prevent these programmes from dullness.

6. SSA authorities should make the teachers aware of the objectives of in-service teacher education programmes and frame the content of these programmes in the light of these objectives.

7. Teachers need to study variety of books for ensuring effective delivery system in the classrooms situation.

8. Teacher education input must reflect in the actual classroom teaching process. It should be activity based and not lecture cum-discussion based.

9. The study has its implications the teacher education should normally be in relation to the needs and requirements of teachers and schools, taking into consideration emerging trends and concerns in education.

10. Focused group discussion and practical work should be made the part and parcel of the teacher education programmes so that the doubts in the minds of the trainees can be removed on the spot.

11. The emerging concerns need to be essentially incorporated in-service teacher education programmes including short duration of orientation of teachers.

12. Orientation regarding handling of modern teaching learning aids and equipments should be given to the teachers as a practical solution to apathetic behavior towards these aids and equipments.
13. Strong monitoring mechanism need to be developed at the institution level in particular, block and the cluster level in general to identify and resolve the issues on the spot.

14. Teacher education to in-service teachers must be imparted with the sole objective of qualitative improvement in the skill, knowledge, communication and handling of real classroom situation.

15. Effective feedback should be collected for future improvement in teacher education programmes.

16. To make teachers professionally competent they need to be trained in ten vital areas as suggested by NCTE (1998) namely: contextual, conceptual, content, transactional, educational activities, developing teaching learning material, evaluation, management, working with parents, community and other agencies.

5.3 SUGGESTIONS FOR FURTHER RESEARCH

The scope and area of research in the field of education is unlimited. Much has been done but still much more needs to be done as education needs amendments and further perfection according to the need of the hour. The investigator, in the present study has made a little effort to present the magnitude of the effectiveness of in-service teacher education programmes at elementary level under SSA but understands that much is still left unaccomplished which her fellow researchers will surely be able to take up in their forthcoming researches. A few suggestions are given below:

1. The present study was conducted in Amritsar, Jalandhar, Kapurthala and Ludhiana districts of Punjab. Similar studies may also be conducted in other districts of Punjab.

2. The present study was conducted in Punjab. Similar studies can also be conducted in other states of India.
3. The present study has been conducted only on elementary/primary teachers. It can be extended to other levels of teacher education, viz. secondary, senior secondary, technical and higher education.

4. The present study consisted of a sample of 529 teachers, 83 head teachers and 369 students. Similar studies can be conducted on a larger sample for a wide generalization or on a smaller sample for a narrow generalization.

5. The study can be extended to study the functioning of DIETs.

6. In the present study perception of teachers and head teachers was taken. Perception of parents, resource persons and personnel from SSA authorities can be taken.