CHAPTER - V

THE SUMMARY OF THE FINDINGS AND RECOMMENDATIONS

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THE SUMMARY OF THE FINDINGS AND RECOMMENDATIONS

Introduction

In the present investigation an attempt has been made to study the efficacy of in-service programmes of teachers on the achievement and attitude of students of secondary level in Coimbatore district. This chapter summarises the findings which have been presented in the previous sections of the chapter IV. The salient findings of the study are brought together in this chapter. Besides the major findings emerging from the study, the researcher also presents areas for further research and the educational implication of the findings of the study in the light of the present investigation.

The salient findings of both quantitative as well as qualitative analyses of the study are summarised below:

Inference through TPTT Scale

1. In general, a positive attitude among students could be noticed with regard to the approaches adopted by the teachers in teaching after their attending in-service programmes. The t-value 5.38 was found to be significant at 0.01 level. Therefore, students opine that teachers' attending in-service training programmes helps them to improve their teaching strategies.
2. It has been found that the teachers working in government schools as well as those working in aided management schools improved their teaching efficiency as a result of their attending in-service training programmes.

3. Though male teachers as well as female teachers are benefited by attending in-service course, female teachers make better use of it. A significant difference at 0.01 level was noticed between the teaching performance of female teachers and male teachers. It was found that in-service training programmes contribute to a better performance on teaching of female teachers than that of male teachers. Female teachers tend to make better utilisation of in-service programmes to improve their teaching.

4. The t-value 0.67 obtained from the post-test scores shows no significant difference between means among teachers working in schools in rural areas and teachers working in schools in urban areas where as the difference was significant between pre-test and post-test scores. Hence it is concluded that attending in-service training programmes equally improves the teaching performance of the teachers irrespective of the locality.

5. The opinion scores of students reveal that both the teachers' whose experience is more than 15 years and the teachers' whose experience is less than 15 years
significantly improved their teaching performance after attending the in-service training programmes.

6. While comparing the teaching performance of teachers who attended more than three in-service programmes and teachers who attended less than three programmes, a significant change at 0.01 level could be noticed (t=6.74). Hence, it is inferred that attending more in-service programmes can help to improve the teaching performance of the teachers.

7. A significant difference at 0.01 level could be noticed (t=5.94) among the teachers who attended the in-service training programmes with follow-up activities and teachers who attended in-service training programmes without follow-up activities. Hence, it can be inferred that attending in-service programmes with follow-up activities improves teaching efficiency of the teacher.

Inference through TAITP Scale

8. No significant difference could be noticed (t=1.37) in the attitude of teachers working in government schools and the teachers working in the aided management schools with regard to in-service programme. Hence it can be inferred that both government and aided management school teachers are having similar attitude towards in-service training programmes.
9. A significant difference at 0.05 level (t=2.09) was found between the attitudes of male teachers and female teachers. Female teachers tend to have a more positive attitude on in-service training than that of male teachers.

10. With regard to the locality, no significant difference in attitudes could be noticed (t=1.11). Teachers in urban schools as well as rural areas have the same attitude with regard to in-service training.

11. No significant difference was found in the attitude of teachers on the basis of their experience (t=0.47). Hence it is concluded that teachers have similar attitude towards in-service training programme irrespective of their teaching experience.

12. A significant difference at 0.05 level (t=2.28) was found between the attitude of teachers who attended more than three courses and the teachers who attended less than three courses. Hence, it is concluded that teachers attending more courses are having better attitude towards in-service training than that of teachers attending a few courses.

13. A significant difference at 0.01 level (t=2.63) could be noticed among the attitude of teachers who attended the in-service training programmes with follow-up activities and the attitude of teachers who attended the in-service training programmes without follow-up activities. Hence, it is inferred that teachers who attended in-service programmes
with follow-up activities have better attitude towards in-service programmes than that of teachers who attended in-service programmes without follow-up activities.

Inference through Students Achievement

14. There is a significant difference between the achievement of the students before and after their teachers' attending in-service training programmes. The t-value 3.00 shows the significant difference at 0.01 level. Hence it is inferred that student achievement improves as a result of the teachers' attending in-service training programmes.

15. The analysis of the achievement scores revealed that in government schools, teachers attending in-service programmes makes no significant difference in their students' achievement, whereas in aided management schools teachers attending in-service programmes improved the achievement of their students significantly at 0.05 level.

16. The results of the post-test and the pre-test achievement scores revealed that the achievement of students significantly improved at 0.05 level irrespective of the gender of the teachers who attended the in-service training programmes.

17. No significant difference could be noticed (t=0.67) in the achievement of the students studying under female teachers and male teachers. Hence, it may be concluded that in-service training programmes contribute to a similar
achievement among students irrespective of the gender of teachers who attended in-service training programmes.

18. The achievement scores indicate that in urban schools teachers attending in-service programmes make no significant difference in their students' achievement, whereas in rural schools teachers attending in-service programmes improved the achievement of their students significantly at 0.01 level.

19. While comparing the achievement of the students on the basis of locality, no significant difference (t=0.11) was noticed. Hence it may be concluded that teachers attending in-service training programmes improves the achievement of the students irrespective of the locality of schools (rural/urban).

20. A significant difference at 0.01 level (t=4.60) could be noticed between the achievement of students studying under teachers who attended more than three in-service programmes and the teachers who attended less than three in-service programmes. Hence it is inferred that teachers attending more in-service training programmes significantly improves the achievement of their students than the teachers attending one or two in-service training programmes.

21. A significant difference at 0.01 level (t=3.52) could be noticed between the achievement of the students who are studying under teachers who attended in-service programmes with follow-up activities and students studying
under teachers who attended in-service programmes without follow-up activities. Hence, it may be concluded that teachers' attending in-service programmes with follow-up activities significantly improves the achievement of their students than the teachers' attending the in-service training programmes without follow-up activities. This also shows the need for follow-up activities in in-service training programmes.

Inference through Correlational Study

22. The coefficient of correlation between "the attitudes of students on the teaching performance of their teachers" and "students' achievement" is 0.615, which shows a high correlation. Hence, it may be concluded that better attitude towards their teachers' teaching and the achievement scores are related. This finding also has a sound educational implication.

Recommendations of the Study

The present research is a need based one. When teacher education is going through rapid changes, a research attempted to study the efficacy of in-service programmes, indeed, contributes significantly towards policy making, teacher preparation and classroom management as well. The recommendations based on the results of the study are broadly classified under the following categories:
1. Classroom management

2. Teacher preparation - curriculum

3. Functions of teacher preparation institutes.


The salient recommendations are enumerated as follows.

1. Classroom Management:

One of the factors contributing to better classroom management is the quality of teaching. The study revealed that the quality of teaching improves as a result of in-service training programmes. Therefore, the in-service programmes may be made compulsory for all teachers. Certain suggestions are as follows:

1.1. The interview with the heads of institutions clearly revealed that in-service programmes should be made compulsory for every teacher for improving their teaching. The achievement scores as well as the attitudes of students and the attitudes of the teachers also indicate that a better teaching-learning environment is created as a result of the teachers' attending in-service training programmes. The interview also revealed that in-service programmes geared towards method of teaching have more impact on the over all achievement of the students, thereby contributing to better classroom management. Therefore, the study
recommends that attending in-service programmes be made compulsory, especially in the areas of methods of teaching. On an average a teacher can be expected to attend at least one in-service programme on methods of teaching every year.

1.2. In a classroom environment, the quality of teaching depends upon two key aspects, namely the methods of teaching and the content knowledge of the teacher. Education is changing so rapidly that a teacher will find himself/herself in a difficult position if he/she does not update the knowledge base. Therefore, content oriented in-service programmes become very vital towards creating a better classroom teaching-learning atmosphere. Therefore, the study recommends that a minimum of one in-service programme related to the content area of the teacher may help him/her to keep abreast with the latest innovations in the knowledge area. The educational authorities need to be oriented about the importance of in-service training programme in both content and methodology.

1.3. The study revealed a positive relationship between the teacher efficiency and students achievement as well as attitude. This relationship strongly influences a congenial classroom atmosphere. There may be other factors too besides the teaching efficiency that may
work significantly in the classroom management. More replication studies may be of use in further strengthening the results of the present study and also identifying other significant factors if any.

1.4. The study also revealed that teachers are open to new innovations in learning approaches. Female teachers and those working in rural areas are highly benefited by the in-service programmes. They desired to know more about the new concepts such as, co-operative learning, peer-tutoring etc. Therefore, the nature of in-service programmes should also change according to the modern trends. The study recommends that the latest innovations in education should find a prominent place in in-service programmes. So that the teachers can be provided with latest innovations rather than stereotyped techniques.

1.5. Whatever may be the quality of in-service programme, the true involvement of the teacher can also be influenced through appropriate incentives - both material and motivation. Provision of such incentive may make the teachers better disciplined in their work there by contributing indirectly to a sound classroom management. Therefore, the study recommends appropriate incentives for the teachers to attend in-service programmes.
1.6. There are ample research studies to support the hypothesis that there is a vast difference between what is taught in a teacher preparation centre and what is actually practiced in the school. It is necessary to consider the views of in-service teachers for making necessary changes in the teacher preparation curriculum, particularly in the area of classroom management. Therefore, the study recommends a sound coordination between the teacher preparation centres and teachers belonging to the localities surrounded by such teacher preparation centres.

1.7. In our present setup, achievement marks decide the career of the student. This study revealed that the achievement of students improved significantly after teachers attending in-service training programmes. This finding must be made known to all teachers so that they evince interest in undergoing in-service education.

The recommendations made so far mostly related to the classroom management. The findings of the study also have some significant implications for teacher preparation centres. They are enumerated in the following section.

2. Teacher Preparation - Curriculum:

Teacher preparation institutions are the nerve centres of any society under the context of human resource
development. Therefore, these institutions have vital role to play not only in preparing the teachers but also in updating their knowledge. Some of the recommendations pertaining to teacher preparation as emerged from this study are enumerated as follows:

2.1. The present scenario is that teacher preparation centres organise in-service programmes only to a handful of teachers. This is a small segment of the teachers who need in-service training programmes. On the other hand there are teachers who are not fully aware of the positive impact of in-service programmes on their teaching efficiency. The teacher preparation has a vital role to play in creating a sound awareness among pre-service teachers as well as in-service teachers about in-service programmes, adequate content on the need and nature of in-service programmes, methods of organising in-service programmes etc. should be included in the pre-service curriculum itself.

2.2. In-service education be called as continuing education. In such an education a clear demarcation on what can be acquired through study of materials and what should be taught in a contact programme need to be explicit. This aspect has to be included as an exercise in the pre-service curriculum itself. A certain exemplary for this
may help the teachers to understand a vital role of in-service programmes for improving their teaching efficiency.

3. Functions of Teacher Preparation centres:

As revealed in the study, the teacher preparation centres have to redefine their role and responsibilities in improving education in general and school education in particular. The recommendations that have emerged out of the study are given as follows:

3.1. It is strongly felt that teacher preparation centres should not function in isolation and they should have close collaboration with the schools and community. Therefore the teacher preparation centres should slightly redefine their role, thereby including extension services as an essential component of teacher preparation centre. The result of the study strongly justify the starting of extension services departments for helping the community at large.

3.2. The starting of extension services departments, in every teacher preparation institute may be costly. In such a case, it is vital for every cluster of teacher preparation centres to provide extension services with the assistance of the existing faculty. In-service training programmes help both the teacher and the teacher educator and therefore provision of extension
services must be made mandatory for every teacher preparation centre irrespective of the availability of extension services departments.

3.3. Often times the teacher preparation centres decide the nature of in-service programmes, experiences have proved that suggestions given by the practicing teachers and heads of institute are more relevant than the topics decided by the teacher preparation centres. Therefore the study recommends formation of advisory committee for extension services with the heads of institutes in the locality, educational officers, selected teachers and a few senior students as its members, becomes necessary.

3.4. Teacher preparation should work in close collaboration with government agencies, schools and the community. There should be constant interaction between these entities to decide the nature of educational programmes including in-service programmes necessary for the particular locality. Therefore the colleges of education should have proper networking between them and government bodies for proper exchange of expertise and resources. Hence, the study strongly recommends coordination between teacher preparation centres, government, schools and community.
3.5. The study reveals that in rural schools there was a considerable improvement in the achievement of students after teachers attending in-service training programmes. Rural schools which are devoid of adequate facilities may try to compensate by training their teachers through in-service programmes. Hence more attention should be given to organise appropriate in-service training programmes for teachers working in rural schools.

3.6. The study reveals that teachers attending in-service training programmes with follow-up activities show a better performance in teaching. So, the agencies should organise in-service programmes with follow-up activities. Government and other agencies should provide more facilities to the organisers to carry out enough follow-up activities.

4. Policy Planning:

In addition to the above recommendations, certain recommendations are pertaining to policy matters. They are described below:

4.1. The recognition of the National Council for Teacher Education (NCTE) as a statutory body is a big boon to teacher education in India. This agency is expected to control the quality of teacher education in the country. The NCTE has developed appropriate norms for
pre-service teacher education. It is vital that NCTE should give emphasize to in-service training programmes too. So that the thrust of in-service programmes is not overshadowed by the pre-service programmes. The study recommends that national bodies such as NCTE and NCERT should develop norms regarding in-service and continuing education in the careers of teachers ranging from primary to higher secondary levels.

4.2. Providing in-service education to teachers at school level should be made compulsory for every teacher educator. It is advisable if it is included in the job description of the teacher educator. In addition to this it is suggested that the in-service training hours be taken into consideration for calculating the workload of the teacher educators.

4.3. School educations ranges from pre-primary to higher secondary levels. In the present scenario, there seems to be a gap between primary education and secondary education teacher preparation centres. A secondary education teacher preparation centre (colleges of education) is often confronted with a situation of providing in-service education to primary level teachers too. These types of in-service programmes can be conducted effectively, when there is proper co-ordination between primary level teacher preparation
centres and their counterparts at secondary level. Therefore teacher education should come under one umbrella for better co-ordination purposes.

The findings and the recommendations made in the preceding sections clearly amplify the need for in-service training programmes. The teachers participated in the study clearly expressed that in-service education is helping them to improve themselves irrespective of the locality, experience, gender, etc. The number of in-service programmes attended by them was considered to be a significant factor in improving their efficiency.

The students expressed a positive opinion about teachers' efficiency in teaching as a result of their attending in-service training programmes. Their achievement also shows a marked improvement, the heads of institutes also opined that in-service training programmes are contribute to better teaching-learning environment. Therefore the need for in-service training programmes must be emphasized and practiced in both letter and spirit.

Suggestions for further Research

A research study would be incomplete if it doesn't provide necessary guidelines as well as potential research topics, for further exploration. The following suggestions are made for furthering research in this area.
1. This study was conducted in Coimbatore district only. This may be extended to other districts in the state and other states in the country.

2. Only secondary level was taken for this study. This can be extended to other level like primary, higher secondary and college level also.

3. A study may be conducted to find out the relative effectiveness of in-service programmes provided through different approaches such as, Seminars, Workshops and discussion.

4. A comparative study may be conducted to find out the effectiveness of in-service training programmes at different levels, namely pre-primary, primary, secondary and higher secondary levels.

5. Only the achievement scores were taken as dependent variable, a study may be conducted to find out the effectiveness of in-service training programme on the non-scholastic variables.

6. A study may be conducted to find out the in-service needs of teachers at various levels, such as primary, secondary, higher secondary and collegiate level.

7. A separate study may be conducted to find out the effectiveness on the basis of follow-up activities given to teachers along with in-service training programmes.
Conclusion

A research activity in a specific area is just the beginning of the exploration of the unidentified treasures in that area. The need for in-service training programmes is being highlighted in many policy statements, but studies on the effectiveness of such programmes were conspicuously missing. Therefore, the present study has opened up new horizons in the field of in-service education. A good educational system has to be supported by the infrastructural facilities as well as the human resources. Development of physical facilities may demand financial resources but expansion of knowledge may be facilitated well even with limited resources. In India, with such a large number of schools manned by millions of teachers, building of adequate physical facilities may be a far distant dream but refreshing the knowledge with latest innovations in education is not an impossible task, provided the teacher preparation centres come out of the shelter of isolation and mix with the schools and teachers in the locality for creating a sound learning environment. The future of education, especially in the wake of 21st century has to be planned meticulously by keeping the human resource development as the base. By making the teachers more effective in their teaching, the statement of the Kothari Commission that, the destiny of the country is being shaped in the classroom, can be given a new life and
spirit. Therefore, the future of education depends upon how well a strong network is created between the teacher preparation centres, government agencies, teachers, schools and the community. The in-service training programmes can really make a difference in the attitude and skills of teachers that have a direct influence on the personality development and overall achievement of students. This is the kind of transformation the country will be looking for in the near future. The future depends on how well the relationship between the teacher preparation centres and the schools is established. When the relationship is good, the future of teacher education will be definitely bright. Let us be optimistic.