CHAPTER - 5

SUMMARY, CONCLUSIONS 
AND DISCUSSION
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The summary, conclusions and discussion, and suggestions for further research are presented in this chapter.

SUMMARY

The secondary school teachers are the key persons in preparing the prospective scientists in their classrooms. Their teaching aptitude, social adjustment and job satisfaction make them do well in the classrooms.

Aptitude refers to those qualities characterizing person's ways of behaviour which serve to indicate how well he can learn to meet and solve certain specified kinds of problems. (Bingham) The teaching aptitude helps the teachers in teaching effectively with great vigour and glamour.

Adjustment is a continuous process in which a person varies his behaviour to produce a more harmonious relationship between himself and his environment. (Gates and Jersild) Social adjustment means the success with which people adjust to other people in general and to the group with which they are identified in particular. Well adjusted people have learned such social skills as the ability to deal diplomatically with others. People who are capable of good social adjustment, usually develop favourable social attitudes such as willingness to help others.

Job satisfaction is an integral component of organisational climate and an important element in management-employee relationship. Job satisfaction is a positive emotional state that occurs when a person's job seems to fulfill important job values provided these values are compatible with one's needs. Job satisfaction, in simple words, is an individual's emotional reaction to the job itself. It is a person's attitude towards the job. The teachers' job satisfaction makes them settle well in their positions and work better for the cause of quality education.
Education plays a pivotal role in the growth and development of any nation. It is the teachers who play a significant role in imparting knowledge to the children are the strength of the nation. The destiny of our future generation is in the hands of teachers because they shape the children and mould their behaviour. To discharge their duties effectively they should have aptitude towards teaching, they must be well adjusted both personally and socially, and they should have job satisfaction. Only then, they well perform their job effectively. Therefore, a need is felt to study the level of teaching aptitude, social adjustment and job satisfactions of secondary school science teachers. Hence the present study, namely, “A Study of Teaching Aptitude, Social Adjustment and Job Satisfaction of Secondary School Science Teachers”, is taken up for through investigation.

The present study was intended to measure the teaching aptitude, social adjustment and job satisfaction of secondary school science teachers, and the correlation among teaching aptitude, social adjustment and job satisfaction. The variables considered for the present study were gender, locality of the school, management of the school, type of school (residential and non-residential), medium of instruction, teaching experience of the teachers, and age of the teachers. The present study was confined to the secondary school science teachers of Chittoor district, Andhra Pradesh, India.

The following objectives were identified keeping different aspects of the study in view: 1. To find out the teaching aptitude, social adjustment and job satisfaction of secondary school science teachers. 2. To find out the difference in the teaching aptitude, social adjustment and job satisfaction of men and women secondary school science teachers. 3. To find out the difference in the teaching aptitude, social adjustment and job satisfaction of rural and urban secondary school science teachers. 4. To find out the difference in the teaching aptitude, social adjustment and job satisfaction of government and private secondary school science teachers. 5. To find out the difference in the teaching
aptitude, social adjustment and job satisfaction of residential and non-residential secondary school science teachers. 6. To find out the difference in the teaching aptitude, social adjustment and job satisfaction of English medium and Telugu medium secondary school science teachers. 7. To find out the difference in the teaching aptitude, social adjustment and job satisfaction of more-experienced and less-experienced secondary school science teachers. 8. To find out the difference in the teaching aptitude, social adjustment and job satisfaction of aged above 40 years and below 40 years secondary school science teachers. 9. To find out the association among teaching aptitude, social adjustment and job satisfaction of secondary school science teachers. 10. To find out the association among teaching aptitude, social adjustment and job satisfaction of men and women secondary school science teachers, rural and urban secondary school science teachers, government and private secondary school science teachers, residential and non-residential secondary school science teachers, English medium and Telugu medium secondary school science teachers, more-experienced and less-experienced secondary school science teachers, and aged below 40 years and above 40 years secondary school science teachers.


The normative survey method was used in order to study the teaching aptitude, social adjustment and job satisfaction of secondary school science teachers.

The variables such as secondary school men science teachers versus secondary school women science teachers, urban secondary school science teachers versus rural secondary school science teachers, government secondary school science teachers versus private secondary school science teachers, residential secondary school science teachers versus non-residential secondary school science teachers, English medium secondary school science teachers versus Telugu medium secondary school science teachers, more-experienced secondary school science teachers versus less-experienced secondary school science teachers, aged above 40 years secondary school science teachers versus aged below 40 years secondary school science teachers were selected considering their role in determining the level of teaching aptitude, social adjustment and job satisfaction of secondary school science teachers.

The hypotheses were formulated taking the objectives into consideration. The hypotheses are formulated in Null form. They are: Hypothesis 1: The secondary school science teachers are not possessing high teaching aptitude. Hypothesis 1A: There is no significant difference in the teaching aptitude of men and women secondary school science teachers. Hypothesis 1B: There is no significant difference in the teaching aptitude of rural and urban secondary
school science teachers. Hypothesis 1C: There is no significant difference in the
教学 aptitude of government and private secondary school science teachers.
Hypothesis 1D: There is no significant difference in the teaching aptitude of
English medium and Telugu medium secondary school science teachers.
Hypothesis 1E: There is no significant difference in the teaching aptitude of
residential and non-residential secondary school science teachers. Hypothesis
1F: There is no significant difference in the teaching aptitude of aged below 40
years and above 40 years secondary school science teachers. Hypothesis 1G:
There is no significant difference in the teaching aptitude of more-experienced
and less-experienced secondary school science teachers. Hypothesis 2: The
secondary school science teachers are not possessing high social adjustment.
Hypothesis 2A: There is no significant difference in the social adjustment of
men and women secondary school science teachers. Hypothesis 2B: There is no
significant difference in the social adjustment of rural and urban secondary
school science teachers. Hypothesis 2C: There is no significant difference in the
social adjustment of government and private secondary school science teachers.
Hypothesis 2D: There is no significant difference in the social adjustment of
English medium and Telugu medium secondary school science teachers.
Hypothesis 2E: There is no significant difference in the social adjustment of
residential and non-residential secondary school science teachers. Hypothesis
2F: There is no significant difference in the social adjustment of aged below 40
years and above 40 years secondary school science teachers. Hypothesis 2G:
There is no significant difference in the social adjustment of more-experienced
and less-experienced secondary school science teachers. Hypothesis 3: The
secondary school science teachers are not possessing high job satisfaction.
Hypothesis 3A: There is no significant difference in the job satisfaction of men
and women secondary school science teachers. Hypothesis 3B: There is no
significant difference in the job satisfaction of rural and urban secondary school
science teachers. Hypothesis 3C: There is no significant difference in the job
satisfaction of government and private secondary school science teachers. Hypothesis 3D: There is no significant difference in the job satisfaction of English medium and Telugu medium secondary school science teachers. Hypothesis 3E: There is no significant difference in the job satisfaction of residential and non-residential secondary school science teachers. Hypothesis 3F: There is no significant difference in the job satisfaction of aged below 40 years and above 40 years secondary school science teachers. Hypothesis 3G: There is no significant difference in the job satisfaction of more-experienced and less-experienced secondary school science teachers. Hypothesis 4: There is no significant association among teaching aptitude, social adjustment and job satisfaction of secondary school science teachers. Hypothesis 4A: There is no significant association among teaching aptitude, social adjustment and job satisfaction of men and women secondary school science teachers. Hypothesis 4B: There is no significant association among teaching aptitude, social adjustment and job satisfaction of rural and urban secondary school science teachers. Hypothesis 4C: There is no significant association among teaching aptitude, social adjustment and job satisfaction of government and private secondary school science teachers. Hypothesis 4D: There is no significant association among teaching aptitude, social adjustment and job satisfaction of English medium and Telugu medium secondary school science teachers. Hypothesis 4E: There is no significant association among teaching aptitude, social adjustment and job satisfaction of residential and non-residential secondary school science teachers. Hypothesis 4F: There is no significant association among teaching aptitude, social adjustment and job satisfaction of aged below 40 years and above 40 years secondary school science teachers. Hypothesis 4G: There is no significant association among teaching aptitude, social adjustment and job satisfaction of more-experienced and less-experienced secondary school science teachers.
The stratified sampling technique after making was found to be the most appropriate technique for the present study. This technique is found to be the most suitable one because the present study involved splitting of the sample into a good number of groups according to different variables. Through stratified sampling only, it is possible to divide the sample into different groups and choose teachers from each of these groups. Random sampling technique is also used to select the science teachers from each group.

Regarding the size of the sample, 480 were found to be appropriate. This was found suitable because the study involves due intensity and detail. Out of the total sample, 240 secondary school science teachers were men and 240 secondary school science teachers were women. Regarding the management of the schools, 240 secondary school science teachers were from the government schools and 240 secondary school science teachers were from private schools. Based on the location of the schools, 240 urban secondary school science teachers and 240 rural secondary school science teachers were selected. According to experience, 240 less-experienced, 240 more-experienced secondary school science teachers were selected. Regarding medium of instruction, 240 English medium secondary school science teachers and 240 Telugu medium secondary school science teachers. Regarding residence, 240 residential secondary school science teachers and 240 non-residential secondary school science teachers. Regarding age, 240 secondary school science teachers were aged above 40 years, 240 secondary school science teachers were aged below 40 years.

The tools occupy a major role in any research study because they are useful in the collection and analysis of data to draw meaningful conclusions. As the present study was an intensive one, the available standardized tools were selected. Teaching Aptitude Test Battery (TATB) of Shamim Karim and Ashok Kumar Dixit was used to study the teaching aptitude of secondary school
science teachers. The researcher is interested in using the standardized tool as the present study involves a thorough study of social adjustment of secondary school science teachers. The investigator has used the Social Adjustment Inventory (SAI) constructed and standardized by Roma Pal to study the social adjustment of secondary school science teachers. Teachers Job Satisfaction Questionnaire standardized by Pramod Kumar and Mutha was used to study the job satisfaction of secondary school science teachers.

The mean, standard deviation, critical ratio and chi-square test were used to analyse the raw scores and to extract the findings. Based on the findings, suitable conclusions were drawn for necessary discussion and implementation.

CONCLUSIONS AND DISCUSSION

The following are the conclusions drawn from the analysis data. These conclusions were arrived at after appropriate research findings and these were followed by necessary discussion.

TEACHING APTITUDE OF SECONDARY SCHOOL SCIENCE TEACHERS

1. The secondary school science teachers are having very high teaching aptitude.

The secondary school science teachers have very high teaching aptitude which should help the students in achieving high scores in the science subjects in all the examinations.

The science teachers should maintain this very high teaching aptitude to continue themselves as the most efficient science teachers throughout their teaching career.
2. The secondary school men and women science teachers possess a very high teaching aptitude with a significant difference in their teaching aptitude. The men science teachers have a higher teaching aptitude than women science teachers.

Nair (1974), Upadhyaya (1976), Sharma (1984), Reddy (2001) and Augustine (2010) found no significant difference in the teaching aptitude of men and women teachers, whereas Aruna and Geetha (2006) and Kuraishy and Ahamad (2010) found a significant difference between men and women teachers with regard to the level of teaching aptitude.

Both men and women science teachers with their very high teaching aptitude should help their students in excelling in science subjects.

3. The rural and urban secondary school science teachers have very high teaching aptitude with a significant difference. The rural teachers have a better teaching aptitude than their urban counterparts.

Nair (1974), Bhasin (1988), Periasamy (2001) and Reddy (2001) did not find any significant difference in the level of teaching aptitude possessed by urban and rural teachers, whereas Prakasham (1988) observed high teaching competency and teacher effectiveness in urban teachers when compared to rural teachers.

As both rural and urban secondary school teachers possess a very high teaching aptitude, they should help their students in doing their best in all academic and scientific activities.
4. The government and private secondary school science teachers have a very high teaching aptitude without any significant difference between them.

The research findings of Prakasham (1988), Sreenivasan (1992), Sudarsan (2001) and Parvati and Jagadesh (2009) are contradictory as the results of these studies put forth a significant difference between government and private school teachers.

With the very high teaching aptitude, the government and private school teachers should help their students in doing well in all scientific endeavours though the infrastructure and instructional facilities differ significantly in government and private secondary schools.

5. The English medium and Telugu medium secondary school science teachers possess a very high teaching aptitude with a significant difference between them in the level of their teaching aptitude. The English medium secondary school science teachers are have a better teaching aptitude than Telugu medium secondary school science teachers.

Though the result is in contradiction with the popular opinion that the native language helps anybody and everybody in having high teaching aptitude, the English medium science teachers have high teaching aptitude. With this very high teaching aptitude, both English medium and Telugu medium science teachers should do well in the class rooms and laboratories irrespective of the availability of instructional facilities.
6. The residential and non-residential secondary school science teachers possess very high teaching aptitude with a significant difference in the level of their teaching aptitude. The residential school science teachers have a better teaching aptitude than non-residential secondary school science teachers.

These results may be due to the availability of facilities and the working schedule of the residential and non-residential secondary schools. This may be one of the reasons for getting very good results in residential schools.

Both the teachers working in either of these schools should work seriously for the benefit of their students irrespective of their teaching aptitude levels and the instructional programmes.

7. The secondary school science teachers aged above 40 years and below 40 years possess a very high teaching aptitude with a significant difference. The more aged teachers are possessing higher teaching aptitude than their counterparts.


As all the science teachers possess very high teaching aptitude, both teachers aged above 40 years and below 40 years should help their students in performing upto the expectations of the students in their science subjects.
8. The less-experienced and more-experienced secondary school science teachers have a very high teaching aptitude with a significant difference in their level of teaching aptitude. The less-experienced science teachers possess a better teaching aptitude than their more-experienced counterparts.


Experience always helps the teachers in having several psychological traits that have a positive impact and so is the case with teaching aptitude and teaching experience. All the teachers with their very high teaching aptitude should help their students excel in their science subjects.

SOCIAL ADJUSTMENT OF SECONDARY SCHOOL SCIENCE TEACHERS

9. The secondary school science teachers have an average level of social adjustment.

The secondary school science teachers should develop themselves through various strategies of social adjustment in order to adjust themselves well and make the students adjust well to the school and also the society.
10. The secondary school men and women science teachers possess an average social adjustment with a significant difference between them. The men science teachers have better adjustment than women science teachers though both of them possess only average social adjustment.


The men and women science teachers should enhance their social adjustment as these are the guiding souls to the students in their social activities.

11. The rural and urban secondary school science teachers have average social adjustment with a significant difference between them. The rural science teachers are better at social adjustment than their urban counterparts.

Though the facilities and amenities significantly differ from urban schools, the rural science teachers possess a high level of social adjustment and this may be because of their exposure to the public frequently. Whatever the level of social adjustment may be, both rural and urban secondary school science teachers should increase their level of social adjustment and do the needful in making the students socially adjusted.
12. The science teachers working in government and private secondary schools possess an average social adjustment without any significant difference between them in social adjustment.

The infrastructure and the instructional facilities available in the private and government schools seem to be not having any influence on the social adjustment of science teachers.

Both private and government school science teachers should develop their social adjustment and help their students do the best in the public domain.

13. The English medium and Telugu medium secondary school science teachers possess average social adjustment with a significant difference between them. The English medium secondary school science teachers indicate less social adjustment than English medium science teachers though both of them reveal only with average level of social adjustment.

Irrespective of their medium of instruction, both English medium and Telugu medium secondary school science teachers should increase the level of social adjustment and support the students in enhancing their adjustment levels so as to make them adjust well in the society.

14. The residential and non-residential secondary school science teachers have average social adjustment without any significant difference between them.

The residential and non-residential secondary school science teachers with their social adjustment should help their students in mingling with each other well in the school and society.
15. The secondary school science teachers aged above 40 years and below 40 years possess average social adjustment without any significant difference between them.

Tulpule (1977) found a relationship between age and social adjustment.

The secondary school science teachers should improve their social adjustment irrespective of their age to help the students adjust well in the society.

16. The secondary school science teachers with less-experience and more-experience have average social adjustment with a significant difference. The less-experienced science teachers are socially able to adjust better than the more experienced science teachers.

Gupta (1988) found a relationship between adjustment and experience of teachers.

The secondary school science teachers, without considering their experience, should enhance their social adjustment level in order to help themselves and their students to adjust themselves and cope with social problems.

**JOB SATISFACTION OF SECONDARY SCHOOL SCIENCE TEACHERS**

17. The secondary school science teachers have average job satisfaction.

The teachers should improve their job satisfaction by enhancing motivation, skills, perceptions, morale and quality of work as job satisfaction leads to promotes quality instruction.
18. The secondary school men and women have average job satisfaction with a significant difference. The women science teachers have lower job satisfaction than men science teachers.


Both men and women secondary school science teachers should improve their level of job satisfaction with the facilities and opportunities available to them. By this, they can teach well in the classrooms.

19. The rural and urban secondary school science teachers have average job satisfaction without any significant difference between them.

Bhuyan and Choudhury (2002) and Sylvester (2010) found the same results out of their research. Saveri (2009) observed a significant difference between urban and rural teachers with regard to job satisfaction. Basi (1991) noticed that the urban teachers are more satisfied in terms of job satisfaction than their rural counterparts.

The rural and urban secondary school science teachers, ignoring their school facilities and social exposure, should improve their job satisfaction and do their best in the classrooms and laboratories.
20. The government and private secondary school science teachers have average job satisfaction without any significant difference between them.

Stragener, Flabee and Wood (1952), Butler (1961) and Anjaneyulu (1968) found a positive relationship between management and job satisfaction. Reddy and Reddy (1978), Reddy and Babjan (1980) and Reddy and Ramakrishnaiah (1981) observed that the private school teachers have more job satisfaction than their public school counterparts. In contradiction to this, Usmani, Pandey and Ahamad (2006) found that government aided school teachers are highly satisfied whereas unaided and private school teachers are least satisfied.

The science teachers working in private and government secondary schools should develop better job satisfaction without comparing the facilities and problems of schools to teach better for the benefit of their students.

21. The English medium and Telugu medium secondary school science teachers possess average job satisfaction with a significant difference between them. The English medium school science teachers are more satisfied than the Telugu medium school science teachers.

The teachers of both the schools should have a higher level of job satisfaction to satisfy their students in teaching and learning process in order to achieve the goals of science education.

22. The residential and non-residential secondary school science teachers have average job satisfaction without any significant difference between them.

The science teachers working in residential and non-residential secondary schools should have better job satisfaction as this helps them in teaching well in these schools, which in turn, helps their students to do well in the science subjects.
23. The secondary school science teachers aged above 40 years and below 40 years have an average level of job satisfaction without any significant difference between them.

Alutto (1972), Smith (1982) and Al-Khaldi (1983) found that the most satisfy teachers are aged ones. Lavingia (1974) and Siddiqui (2009) observed that younger ones are more satisfied than the older teachers.

As the age is not a bar to teaching profession, every teacher should have better job satisfaction to teach well in their class rooms.

24. The less-experienced and more-experienced secondary school science teachers have high job satisfaction with a significant difference between them. The less-experienced science teachers have high job satisfaction the more-experienced science teachers have average job satisfaction.


Though the age, experience and service conditions influence the level of job satisfaction of the science teachers, the less-experienced and more-experienced science teachers should do well in their academic activities by enhancing their job satisfaction levels.
ASSOCIATION AMONG TEACHING APTITUDE, SOCIAL ADJUSTMENT AND JOB SATISFACTION OF SECONDARY SCHOOL SCIENCE TEACHERS

25. There is a significant association between teaching aptitude and social adjustment and between social adjustment and job satisfaction. There is no association between job satisfaction and teaching aptitude of secondary school science teachers.

The secondary school science teachers, with the association among teaching aptitude, social adjustment and job satisfaction, should prove themselves to be good teachers. Though there is no association between job satisfaction and teaching aptitude, these two traits help the teachers do well in their instructional activities.

26. There is a significant association between teaching aptitude and social adjustment, and social adjustment and job satisfaction in both men and women secondary school science teachers. There is no significant association between job satisfaction and teaching aptitude of men and women secondary school science teachers.

The secondary school science teachers, both men and women, should work well in the schools to make their class rooms effective even with or without significant association among teaching aptitude, social adjustment and job satisfaction.

27. There is a significant association among teaching aptitude, social adjustment and job satisfaction of urban secondary school science teachers. There is a significant association between teaching aptitude and social adjustment, and social adjustment and job satisfaction, but there is no significant association between job satisfaction and teaching aptitude of rural secondary school science teachers.

The rural and urban secondary school science teachers with the present association among teaching aptitude, social adjustment and job satisfaction should serve the students utilizing the facilities and opportunities available in their respective schools.
28. There is a significant association among teaching aptitude, social adjustment and job satisfaction of private secondary school science teachers. There is a significant association between teaching aptitude and social adjustment, and social adjustment and job satisfaction except job satisfaction and teaching aptitude of government secondary school science teachers.

The science teachers working in private and government secondary schools should support their students in all academic and social activities with the utilization of factors that contribute to the cause of teaching.

29. There is a significant association among teaching aptitude, social adjustment and job satisfaction of Telugu medium secondary school science teachers. There is a significant association among teaching aptitude and social adjustment, and social adjustment, except job satisfaction and teaching aptitude of English medium secondary school science teachers.

The science teachers working in Telugu medium and English medium secondary schools should teach well in their classrooms ignoring the linguistic problems and communicative skills.

30. There is a significant association among teaching aptitude, social adjustment and job satisfaction of residential secondary school science teachers. There is a significant association between teaching aptitude and social adjustment, and social adjustment and job satisfaction, except job satisfaction and teaching aptitude of non-residential secondary school science teachers.

The residential and non-residential secondary school science teachers should do well inside and outside the school to help their students in achieving well in their subjects irrespective of the association among various traits.
31. There is a significant association among teaching aptitude, social adjustment and job satisfaction of secondary school science teachers irrespective of their age levels.

The secondary school science teachers, without bothering about their age, should teach upto the expected levels to achieve the aims and objectives of science as all the traits are significantly associated with each other.

32. There is a significant association among teaching aptitude, social adjustment and job satisfaction irrespective of experience.

As there is a significant association among teaching aptitude, social adjustment and job satisfaction of less-experienced and more-experienced science teachers, they should attend the teaching and practical assignments well in the classrooms and laboratories.

The secondary school science teachers have a very high teaching aptitude, an average social adjustment and average level of job satisfaction. The association between teaching aptitude and social adjustment, and social adjustment and job satisfaction is found in almost all categories of science teachers.

**SUGGESTIONS FOR FURTHER RESEARCH**

In the light of the present study, the following studies may be taken up by the researchers.

- Comprehensive studies may be taken up covering the entire sample of the state to find out the level of teaching aptitude, social adjustment or job satisfaction.
- Studies may be taken up to identify the relationship between the teaching aptitude, social adjustment and job satisfaction of the teachers and the academic excellence of the students.
• Studies may be taken up to compare the teaching aptitude, social adjustment and job satisfaction of the teachers of primary and secondary schools in order to fill the gap between these two levels.

• Studies may be taken up to identify the influence of intelligence, personality, attitude, etc., on the level of teaching aptitude, social adjustment and job satisfaction.

• Studies may be taken up to find out the effect of various psychological aspects on teaching aptitude, social adjustment and job satisfaction.

• Studies may be taken up to identify the influence of socio-economic status on teaching aptitude, social adjustment and job satisfaction.

• Studies may be taken up to know the influence of head of the school in enhancing teaching aptitude, social adjustment and job satisfaction.

• Studies may be taken up to study the social adjustment and social adjustment of preservice teachers considering their age, sex, qualifications, etc.

• Studies may be taken up to study the influence of teacher's social adjustment on the social adjustment and achievement of students.

• Studies may be taken up to identify the influence of societal factors on job satisfaction, social adjustment and teaching aptitude.