

CHAPTER : V

REVIEW, MAJOR FINDINGS AND SUGGESTIONS

- 5.10 INTRODUCTION.
- 5.11 REVIEW.
- 5.12 MAJOR FINDINGS IN THE STUDY.
- 5.13 VERIFICATION OF THE HYPOTHESIS.
- 5.14 SUGGESTIONS FOR REDUCTION OF DISSONANCE
BASED UPON THIS FINDINGS.
- 5.15 SUGGESTIONS FOR REDUCTION OF DISSONANCE
BASED UPON FOREIGN FINDINGS.
- 5.16 SUGGESTIONS FOR FURTHER STUDIES.
- 5.17 CONCLUSION.
- 5.18 REFERENCE.

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REVIEW, MAJOR FINDINGS AND SUGGESTIONS

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5.10 INTRODUCTION :

Dissonance could arise from logical inconsistency, cultural mores and from past experiences. If two cognitive elements are relevant, the relation between them are either dissonant or consonant. Dissonance almost always exists after a decision has been made between two or more alternatives. It exists after an attempt has been made by offering rewards or punishment to elicit overt behaviour that is at variance with private opinion. Forced or accidental exposure to new information may create dissonance with existing cognition.

When new information is contrary to information already held by the individual, dissonance results. This dissonance is a major source of human motivation. According to Yelon and Weinstein (1977) teachers can consciously use cognitive dissonance as a motivational device by presenting information or a point of view known to be contrary to that

held by students.

When the teacher becomes aware of new idea for which he has a favourable regard then the teacher is motivated to adopt the innovation by the dissonance created in what he believes and his action. The teacher may secure further the innovative information which persuades him that he should not have adopted the innovation. This dissonance may be reduced by discontinuing the innovation.

In this study an attempt has been made to locate the dissonance state among secondary school teachers of Madras city with their personal variables and institutional variables.

5.11 REVIEW :

Chapter-I deals with the theory and existence of dissonance which can be considered as one of the factors of daily life of an individual. The occurrence of daily life is accompanied by a pressure to reduce it. The reduction of dissonance is a basic process in human life and it is not surprising that its manifestations are observed in a wide variety of contexts. Dissonance once created may persist. There is no guarantee that the person will be able to reduce or remove the dissonance.

Innovative proneness scale explains to what extent teachers show their readiness to accept new ideas and changes and how they behave when the changes are to be introduced in their institutions and where they stand on change related values. Innovative proneness scale is useful in locating Innovation Dissonance in a person. The teachers' personal variables such as age, sex, teaching experience, professional reading habit, academic qualifications, mobility, Inservice education and job satisfaction helped the investigator to locate the Innovation Dissonance. The institutional variables like Leadership Behaviour, Climate of the School and Innovativeness of the school were also helpful to locate the dissonance state.

The second chapter deals with the available related literature and researches in India and abroad. More than 100 researches and other related publications, most of the research workers in India and abroad give importance to the work of the organisation rather than to individual working in an organisation. In other words innovations are given more importance rather than the practitioners of innovations. When summarized the following points emerged. The lead in this aspect of study is taken by other disciplines viz. Anthropology, sociology, Medical Sociology and Industry. The credit for work done in this area goes to U.S.A. research workers.

In India the study of Innovation is done by the Centre of Advanced study in Education, Faculty of Education and Psychology in the M.S. University of Baroda. Committees and commissions appointed by the Government from time to time have looked in to this aspect of study.

As regards Innovation in education according to the researchers' Conclusion they feel that seminars, workshops and inservice Courses Organised at various places in India, have been the sources of innovative ideas in Education and that the Organisational health, Climate, and leadership behaviour pattern of the leader have been found responsible for flourishing or crushing and the innovative ideas. In majority of the researches Organisations are given more importance than the personnel that constitute the Organisation. A particular focus is given to the related literature and researches on dissonance.

Chapter-III deals with the plan and procedure of the study under consideration. The procedure begins with the reading of the available educational literature to throw light on the rational for the adoption of Innovative proneness scale for Teachers of Secondary Schools of Madras City. The scale is divided into three sections.

SECTION - I : Inventory of Attitudes to Innovation which consists of seven components namely Individualisation, curriculum Organisation, Teaching-Learning process, Teaching Resources, Internal School Organisation, Staff Development and School Community Relationship.

SECTION -II : Situational Characteristics and Innovation characteristics having eight components namely Administrative support, Staff Norms, System Norms, Complexity, Compatability, Riskness, Localiteness and Cosmopoliteness.

SECTION -III : Change related values consists of Traditionalism, Progressivism, Dogmatism, Venturesomeness, Conservatism and change Proneness. There are twenty one components containing hundred and fifty items.

The fourth tool LBDQ has two dimensions namely Initiating, structure and Consideration having 15 items in each.

The fifth tool OCDQ has eight dimensions namely Disengagement, Hindrance, Esprit, Intimacy, Aloofness, Production Emphasis, Thrust and Consideration.

The sixth tool namely Thurstone Temperament Schedule containing seven dimensions namely Active Trait, Vigorous Trait, Impulsive Trait, Dominant Trait, Reflective Trait, Sociable Trait and Stable Trait. On

the whole there are 384 items in the Questionnaire. The questionnaires were distributed to 100 selected schools and 540 responses were collected. The teachers were asked to indicate the responses to each of the 150 items on a six point scale. Section IV and Section V namely LBDQ and OCDQ were to be scored in five point scale and four point scale respectively as suggested by Halpin.

In the Thurstone Temperament Schedule the teachers were asked to indicate the responses to each of the 140 items on the three point scale.

Item scores for each respondent were assumed to provide a global score ranging from 0 to 150 in section I, 0 to 300 in section II, 0 to 300 in Section III, 0 to 120 (0-60 on Initiating Structure and 0-60 on consideration) in Section IV, 1 to 256 in Section V and 0 to 140 in Section VI. Thus the responses were scored and the three dissonant state namely Innovation - Attitude - Behaviour Dissonance, Innovation Behaviour - Confirmation Dissonance and Innovation - Attitude - Confirmation Dissonance were located. The magnitude of Dissonance according to the teachers' personal variables like age, sex, teaching experience, academic qualifications, professional qualifications, reading habit, mobility, Inservice education and professional satisfaction were calculated and Institutional variables such as leadership

pattern of principals, Organisational Climate of the schools and temperament of individual teachers were also taken into account to locate the dissonance.

Chapter IV gives the analysis of the data collected from the secondary schools in the city of Madras. The responses were hand scored. The data was computerised at the Physical Research Laboratory, Ahmedabad. The dissonant state of secondary school teachers was located by using Innovative proneness scale. The patterns of Leadership Behaviour was calculated by using Halpin's Quadrant Scheme. The Organisational climate of the school was located using the appropriate statistical measure developed by Halpin and Craft. They developed six proto type profiles which were viewed as descriptions of six different organisational climate. The temperament of individual teachers were calculated using Thurstone Temperament Schedule. The hundred schools were classified into two kinds namely (1) Innovative and Non-innovative with the consideration of the concerned District Educational Officer. All these values were taken as independent variables to locate the Innovation Dissonance among Secondary School Teachers in Madras City.

The entire account of all the chapters is revised in this last chapter and in the following pages major findings and suggestions are given. The findings

are summarised in the subsequent section and the general suggestions on the basis of this study and suggestions for further study are also given.

5.12 MAJOR FINDINGS IN THIS STUDY :

The summary of the major findings are described in this chapter. The purpose of the present study was to locate the innovative dissonance state and proneness of the Secondary School Teachers in the city of Madras.

1. In so far as the 'age' factor of Secondary School Teachers is concerned, Teachers above 35 years of age show a more dissonant state than Teachers below 35 years of age in all the three sections of the innovative scale.
2. Male teachers seem to have a more dissonant state than female teachers.
3. 'Teaching experience' of Secondary School Teachers play a prominent role with respect to the dissonant State. Teachers having 5 years of teaching experience and above manifest a higher dissonant state than teachers having less than 5 years of teaching experience.
4. Regarding 'Professional Qualifications' of Secondary School Teachers, the dissonant

state is shown to be very high for trained teachers when compared to that of the untrained Teachers.

5. The Teachers who have not been mobile (i.e. not changed their schools) show a higher dissonant state than those teachers who have moved from school to school.
6. Teachers who have participated in Inservice programmes have a more dissonant state than those teachers who have not had the benefit of any Inservice programme.
7. Teachers having Professional Reading Habits and those having a certain amount of professional satisfaction have a more dissonant state than teachers who have not cultivated the habit of reading professional literature and teachers dissatisfied with their profession.
8. As far as the temperament of Secondary School Teachers is concerned, teachers possessing sociable Traits show a more dissonant state than Teachers having other traits.
9. Teachers working in Private Management schools evince a more dissonant state than Teachers working in Government, Corporation and Missionary Schools.

10. Teachers working in schools having a closed climate exhibit a higher dissonant state than those working in schools with other types of climates (i.e. Open, Autonomous, Controlled, Familiar and Paternal).
11. Teachers working in Non-innovative schools show a more dissonant state than Teachers working in Innovative Schools.

INNOVATIVE COMPONENTS OF TEACHERS ACCORDING TO THEIR PERSONAL VARIABLES :

1. The 'Age' factor of the Secondary School Teachers is significant with regard to Teaching-Learning Process, school-community relationship, localithess, Cosmpoliteness, and Impulsive Trait.

(Supporting : Panchal 1977).
2. 'Sex' of the Secondary School Teachers is highly significant with the Vigorous and Dominant Traits the Initiative Structure, Consideration, Teachers Behaviour (disengagement); Hindrance, Esprit, Aloofness, and Thrust. It is also significant with staff norms, Progressivism, Change Proneness, Stable and Social Traits.
3. 'Teaching Experience' of Secondary School Teachers show a significance with the Dominant Trait.

4. The "Professional Qualification" of Secondary School Teachers is highly significant with curriculum organisation, Teaching Resources, Staff Development and with Attitude to Innovation.

(Supporting : Panchal (1977) For Teacher Educates).

5. The 'Mobility' of Secondary School Teachers show significance with Individualization, Teaching Resources, School Community Relationship, Attitude to Innovation, Cosmopolitaness, Venturesomeness and Innovative Proneness.

(Supporting of Panchal 1977).

6. 'In-service Education' of Secondary School Teachers, is significant with Dogmatism and Venturesomeness.

(Supporting : Subba Rao (1967)).

7. 'Professional Reading Habits' of Secondary School Teachers show a high significance with conservation, Initiating Structure and Esprit. It is also significant with staff development, dogmatism, Active Trait, Dominant Trait and Aloofness.

(Supporting : Ashma (1974)).

8. 'Professional Satisfaction' of Secondary School Teachers are highly significant with the Impulsive and Social Traits and also consideration and disengagement.

9. 'Leadership Behaviour' is highly significant with hindrance, individualization, staff norms, disengagement and thrust.

(Supporting : Bhogle (1969).)

10. The controlled climate of Secondary Schools show a high significance with the Teaching-Learning process, school community relationship, Attitude to Innovation, change proneness, sociable Trait, Disengagement, Esprit, Intimacy and Aloofness. It is also significant with Individualization, Teaching resources, Internal School Organisation, Compatibility, Localiteness, Cosmopolitaness, Traditionalism, Progressivism, Conservatism, Change Related Values, Consideration and Hindrance and the active and Vigorous Trait.

11. 'Open Climate' schools show a high significance with complexity, conservatism, change proneness, disengagement, Hindrance, and Aloofness. It is also significant with Individualization, Curriculum Organisation, Teaching Learning Process, School Community Relationship and change related values.

12. 'The Autonomous Climate' is significant with Traditionalism, Conservatism, Esprit and Intimacy, and Vigorous Dominant Trait.

TEMPERAMENT OF SECONDARY SCHOOL TEACHERS AND THE
COMPONENTS OF INNOVATION ATTITUDE :

13. As far 'Individualization' is concerned there is a highly significant mean difference between Dominant Trait and Stable Trait and between Dominant Trait and Reflective Trait. There is also a significant mean difference between the Dominant and Social Trait and between the Stable and Social Trait of Secondary School Teachers.

14. Concerning 'Curriculum Organisation', there is significant mean difference between Impulsive and Sociable Traits and between Dominant and Stable Traits as also between Stable and Sociable Traits and Stable and reflecting Traits of Secondary School Teachers.

15. 'Teaching-Learning Process' shows a significant mean difference between impulsive and sociable traits.

16. 'Teaching Resource' shows a significant mean difference between Dominant and Stable Traits, and between Dominant and reflective Traits.

17. Regarding 'Internal School Organisation' there is significant mean difference between vigorous Trait and Reflective Trait, and also between Impulsive and Reflective Trait.

18. The dimension of 'staff development' has a significant mean difference between Active Trait and Dominant Traits, Impulsive and Dominant Traits as also between Dominant Trait and Sociable Trait.
19. As far as 'School Community Relationship' is concerned there is significant mean difference between Dominant Trait and Stable Trait, as also Stable Trait and Social Trait.
20. 'Situational and Innovation Characteristics' show a significant mean difference between Dominant Trait and Stable Trait, and between Dominant Trait and Reflective Trait.
21. Regarding 'Administrative Support' there is significant mean difference between Active Trait and Dominant Trait, also between Active Trait and Social Trait, between Active Trait and Reflective Trait and Impulsive Trait and Dominant Trait.
22. Concerning 'Staff Norms' there is a significant mean difference between Active and Impulsive Traits and Active Trait and Dominant Trait as also between Active and Stable Trait.
23. 'System Norms, Complexity and Compatibility' do not show any significant mean difference.
24. The variable of 'Riskness' show a significant mean difference between the active Trait and Impulsive

Trait, Active Trait and Dominant Trait, Active Trait, and Stable Trait, Active Trait and Reflective Trait.

25. As far as 'Localiteness' is concerned there is a highly significant mean difference between the Dominant Trait and Reflective Trait and between social Trait and Reflective Trait, and there also is a significant mean difference between Active and Social Traits and Stable and Dominant Traits.

26. Variable in 'Cosmopoliteness' is one in which there is a highly significant mean difference between social and reflective Traits. There is also a significant mean difference between Active and Reflective Traits and between Dominant and Reflective Traits.

27. 'Traditionalism' has a highly significant mean difference between Active Trait and Stable Trait, between Stable Trait and Social Trait and also between Dominant Trait and Stable Trait. Besides there is a significant mean difference between Impulsive Trait and Stable Trait and between Stable Trait and reflective Trait.

28. Regarding 'Professivism' there is no significant mean difference.

29. Concerning 'Dogmatism' there is a highly significant mean difference between the Active and Stable Traits, Impulsive and Stable Traits, Dominant

and Stable Traits, Stable and Social Traits and Stable and Reflective Traits. There is also a significant mean difference between the traits, Active and Impulsive, Impulsive and Dominant, Impulsive and Social.

30. As far as 'Venturesomeness' is concerned, there is no significant mean difference.

31. Regarding 'conservatism' there is a highly significant mean difference between Active and Stable Traits and between Impulsive and Stable Traits, between Vigorous and Stable Traits, between Social and Stable Traits and the Reflective and Stable Traits. There is a significant mean difference between Active and Vigorous Traits, Dominant and Stable Traits.

32. In Change Proneness, there is a highly significant mean difference between Active and Dominant Traits, Dominant and Stable Traits, Dominant and Reflective Traits, Stable and Social Traits and Social and Reflective Traits.

33. Regarding 'Change related values' there is a highly significant mean difference between the Active and Stable Traits, Vigorous and Stable Traits, Impulsive and Stable Traits, Dominant and Stable Traits, Stable and Social Traits and Stable and Reflective Traits.

34. Regarding 'Innovative Proneness' there is

significant mean difference between the Dominant and Stable Traits and between the stable and social traits.

35. Concerning 'Initiating Structure' of Leadership Behaviour, there is a highly significant mean difference between the Impulsive Trait and Reflective Traits. There is also a significant mean difference between Impulsive and Reflective Traits, Dominant and Reflective Traits, Social and Reflective Traits.

36. Leadership Behaviour's dimension of 'Consideration Structure' shows a highly significant mean difference between Active and reflective Traits, Impulsive and Reflective Traits, Social and Reflective Traits. Also there is a significant mean difference between Dominant Trait and reflective Trait.

37. As far as 'Disengagement' is concerned, there is a highly significant mean difference between the Vigorous trait and Impulsive Traits, Vigorous and Social Traits, Vigorous and Reflective Traits. There is a significant mean difference between Active and Vigorous Traits, Vigorous and Dominant Traits, and Social and Reflective Traits.

38. Regarding 'Hindrance' there is a highly significant mean difference between the Vigorous and impulsive Traits, Vigorous and Dominant Traits, Vigorous and Sociable Traits, Impulsive and Sociable Traits, and

Vigorous and Reflective Traits. There is also a significant mean difference between Active and Vigorous Traits, Vigorous and Stable Traits and Impulsive and Dominant Traits.

39. With reference to 'Esprit' there is no significant mean difference.

40. 'Intimacy' shows a significant mean difference between Impulsive Trait and Vigorous Trait.

41. As far as 'Aloofness' is concerned, there is a highly significant mean difference between Vigorous Trait and Impulsive Trait. Also there is significant mean difference between Impulsive and Stable Traits, Impulsive and Reflective Traits.

42. Regarding 'Production Emphasis', there is no significant mean difference.

(Supporting : Michigan (1965).

43. As far as 'Thrust' is concerned, there is a highly significant mean difference between the Impulsive Trait and Reflective Traits and between Sociable and Reflective Traits. There is significant mean difference between Impulsive and Stable Traits.

44. Regarding 'Consideration', there is a highly significant mean difference between active and Impulsive Traits, Impulsive Traits and Dominant Traits,

Impulsive and Stable Traits, and Impulsive and Reflective Traits. There is also a significant mean difference between Stable and Sociable Traits.

TYPES OF SECONDARY SCHOOLS AND THE COMPONENTS OF ATTITUDE TO INNOVATION :

'Individualization, Curriculum Organisation and Teaching Learning Process do not show a significant mean difference between the types of Secondary Schools.

With reference to the attitude Teaching Resources, there is significant mean difference between Corporation Schools and Missionary Schools.

As far as 'Internal School Organisation' is concerned, there is significant mean difference between Government Schools and Corporation Schools.

Regarding 'Staff Development and School Community Development' there is no significant mean difference between the different types of Secondary Schools.

'Attitude' to Innovation' does not have a significant mean difference between the different types of Secondary Schools.

There is a significant mean difference between Government Schools and Missionary Schools, as far as 'Traditionalism' is concerned.

Regarding 'Change Proneness' there is a significant mean difference between corporation schools and management schools, and between Management Schools and Missionary Schools, and between Government Schools and Management Schools.

'Hindrance' does not show a significant mean difference between Government schools and Missionary Schools.

As far as 'Esprit' is concerned, there is a highly significant mean difference between Government Schools and Corporation Schools. There is a significant mean difference between Corporation Schools and Management Schools.

Regarding 'Aloofness', there is a significant mean difference between Government Schools and Corporation Schools and Government Schools and Management Schools.

Regarding 'Thrust', there is a highly significant mean difference between Corporation schools and Missionary Schools and between Corporation Schools and Management Schools. There is a significant mean difference between Government Schools and Corporation Schools, and between Government Schools and Management Schools.

(Supporting : Partibher (1969)).

CLIMATE OF SECONDARY SCHOOLS AND THE COMPONENTS OFATTITUDE TO INNOVATIONS :

As far as 'Individualization' is concerned there is a significant mean difference between open climate and Autonomous climate, and open climate and familiar climate.

'Curriculum Organisation' shows a significant mean difference between the open climate and Autonomous Climate, Autonomous Climate and closed Climate.

As far as the 'Teaching-Learning Process' is concerned, there is highly significant mean difference between open climate and familiar climate. There is also a significant mean difference between open Climate and Autonomous Climate, and Open Climate and Closed Climate.

With reference to 'Teaching Resources' there is significant mean difference between open Climate and familiar climate.

Regarding 'Internal School Organisation', there is a significant mean difference between Open Climate and familiar climate, and Open Climate and Closed Climate.

'School Community Relationship' has a highly significant mean difference between open climate and familiar climate, familiar climate and paternal climate.

There is a significant mean difference between open climate and Autonomous Climate, Familiar Climate and closed climate.

Regarding 'Attitude to Innovation' there is a highly significant mean difference between open climate and familiar climate. There is a significant mean difference between open climate and Autonomous Climate, Open Climate and Closed Climate.

'Staff Norms' show a significant mean difference between Open Climate and Controlled Climate, Controlled Climate and familiar Climate.

(Supporting : Fielder 1969).

As far as 'Complexity' is concerned, there is a highly significant mean difference between Autonomous Climate and Controlled Climate, Controlled Climate and Familiar Climate.

There is a significant mean difference between controlled climate and paternal climate.

Regarding 'Compatibility' there is a highly significant mean difference between Autonomous and Closed Climates. There is also a significant mean difference between familiar and Paternal Climates.

As far as 'Riskness' is concerned the mean difference between familiar and paternal climates is significant.

Regarding 'Localiteness', there is a significant mean difference between familiar climate and paternal climate.

'Cosmopoliteness' exhibits a significant mean difference between Familiar climate and Paternal Climate.

With reference to 'Situational and Innovation Characteristics', there is a significant mean difference between Controlled and Paternal Climates, controlled and closed climates.

As far as 'Traditionalism' is concerned, there is a significant mean difference between Open Climate and Controlled Climate, Open Climate and Familiar Climate, Controlled Climate and Paternal Climate, and Controlled Climate and Closed Climate.

As far as 'Dogmatism' is concerned, there is a significant mean difference between Autonomous Climate and Paternal Climate.

As far as 'Change Related values' is concerned there is a highly significant mean difference between

Open Climate and Autonomous Climate. Autonomous Climate and Paternal Climate, Controlled Climate and Paternal Climate, Familiar and Paternal Climates. Also there is significant mean difference between Open Controlled Climates, and Paternal and Closed Climates.

(Support : Rose (1952) Bhagia (1973))

As far as 'Change Related Values' is concerned, there is a significant mean difference between Autonomous and Open Climates and Autonomous and Paternal Climates.

Regarding 'Innovative Proneness' there is a significant mean difference between Open and controlled Climates, Open and Familiar Climates, Controlled and Paternal Climates, and Familiar and Paternal Climates.

As far as 'Dominant Trait' is concerned, there is a significant mean difference between Autonomous climate and Familiar Climate.

The 'Stable Trait' has a significant mean difference between Paternal Climate and Closed Climate.

The mean difference between familiar and Paternal Climates is highly significant as far as the Sociable Trait is concerned. Also there is a significant, mean difference between Autonomous and familiar climates, Paternal and Closed Climates.

The 'Active Trait', shows significant mean difference between Autonomous Climate and Familiar Climate and Familiar and Paternal Climates.

The 'Vigorous Trait', has a significant mean difference between open and familiar climates, Autonomous and Familiar Climates, Open and Closed Climates, and Autonomous and Closed Climates.

Regarding 'Initiating Structure', there is a highly significant mean difference between open and Paternal Climate.

As far as 'Consideration Structure' is concerned the mean differences between open and Paternal and Open and Closed Climates are highly significant. Also there is a significant mean difference between Open and Controlled Climates, and Autonomous and Closed Climates.

(Supporting : Bhole 1969 and Miel 1956).

As far as 'Disengagement' is concerned, there is a highly significant mean difference between Open and Familiar Climates, Open and Paternal Climates, Open and Closed Climates, Autonomous and familiar climates, Autonomous and Closed Climates, and controlled and Paternal Climates. There is a significant difference between Autonomous and Paternal Climates, and Controlled and Closed Climates.

Regarding 'Hindrance' there is a highly significant mean difference between Open and controlled, Open and Closed, Autonomous and Controlled, Autonomous and Closed, Controlled and Paternal, Paternal and Closed Climates. There is a significant mean difference between Open and Familiar Climates.

(Supporting : Shelat (1975), Rille (1974))

'Esprit' exhibits a highly significant mean difference between Open and Familiar, Open and Paternal, Open and Closed, Autonomous and Familiar, Autonomous and familiar, Autonomous and Paternal, Autonomous and Closed, Controlled and Closed Climates. Also the mean difference between controlled and Paternal Climate is significant.

Regarding 'Intimacy', there is a highly significant mean difference between Autonomous and Paternal Climates. Also, there is a significant mean difference between Open and Paternal, Autonomous and Controlled Climates.

Considering the Trait of 'Aloofness', there is a highly significant mean difference between Open and Autonomous Open and Closed, Autonomous and Controlled, Autonomous and Familiar, Autonomous and Paternal, Autonomous and Closed and Paternal and Closed Climates. It is clear from the above that the trait of Aloofness

Plays a pertinent role in the climates of Secondary Schools.

(Supporting : Partibha -1969).

Regarding 'Product^{ion} Emphasis', there is a significant mean difference between Autonomous and controlled, controlled and familiar climates.

(Supporting : Darji 1975) Pandya (1975)

Franklin (1975), Pergnn (1976),

Choksi (1976), Tikkamani(1976).

INNOVATIVE CHARACTERISTICS OF SECONDARY SCHOOL TEACHERS

AND THE COMPONENTS OF ATTITUDE TO INNOVATION :

As far as the 'Teaching Learning Process' goes, there is a significant mean difference between innovative and Non-innovative Characteristics of Secondary School Teachers.

Supporting : Miles (1965), Kumar (1972).

With reference to 'Administrative Support', there is a highly significant mean difference between innovative and Non-innovative characteristics of Secondary School Teachers.

With reference to 'Staff Norms', 'System Norms' and 'Riskness', there is a significant mean difference between the Innovative and Non-innovative characteristics of Secondary School Teachers.

As far as 'Situational and Innovation Characteristics' are concerned, there is a significant mean difference between Innovative and Non-innovative Characteristics of Secondary School Teachers.

'Innovative Proneness' has a significant mean difference between Innovative and Non-innovative Characteristics of Secondary School Teachers.

(Supporting: Ashma-1974)

Maniel f : Lucio 1969)

Regarding 'Stable Trait' there is a significant mean difference between Innovative and Non-innovative Characteristics of Secondary Schools. Teachers.

Concerning 'Consideration', there is a significant mean difference between Innovative and Non-innovative characteristics of Secondary Schools.

(Mukhopadyaya 1974).

Regarding 'Thrust', there is a significant mean difference between Innovative and Non-innovative Characteristics of Secondary School Teachers.

(Supporting : Mukhopadyaya (1975)).

5.13 VERIFICATION OF THE HYPOTHESIS :

Age, Sex and Teaching experience are the factors responsible for the dissonance state. The

percentage of dissonance seems to be higher in the case of male teachers than the female teachers.

Professional reading habits, mobility of teachers and job satisfaction are also responsible for the dissonance state. Teachers working in the same school over a long period tend to have more dissonance state.

Professional teacher training and In-service education are also responsible for the dissonance state.

Temperament is also responsible for producing dissonance state.

The Organisational Climate and Leadership Behaviour Patterns of Principals are also responsible for the dissonance state.

Age, sex and teaching experience of the Secondary school teachers are positively related to the Innovative Proneness. In-service education is highly significant with attitudes to Innovation, teaching resources, and change related values. Change Proneness of the teachers is significantly related to stable trait of their temperament and Open Climate of the Schools.

The Hypothesis stated in Chapter-III are verified here based on the findings.

5.14 SUGGESTIONS FOR REDUCING DISSONANCE BASED
UPON THE FINDINGS OF THE PRESENT STUDY :

1. The percentage of Attitude Behaviour Dissonance is high for the teachers of age-35 and above. These teachers may be advised to seek more information about Innovation which might reduce the dissonance. The degree to which these kind of behaviour manifests itself would depend upon the magnitude of dissonance.
2. Male teachers seem to have more Attitude Behaviour Dissonance. It is because of the lack of motivation to seek out or avoid an Innovation. If these teachers are highly motivated, this type of dissonance can be reduced.
3. The more experienced teachers seem to suffer from the state of Attitude Behaviour Dissonance. These teachers assume a passive role and decisions are made without their being involved. They may be actively involved in making decisions to reduce the dissonance.
4. Attitudes Behaviour Dissonance seems to have heavy weightage in the case of trained teachers. Here the existence of disagreement among members of a group produces dissonance. By giving supporting messages, this type of dissonance can be reduced.

5. Teachers working in same school over a long period of time tend to have both Attitude Behaviour Dissonance and confirmed Behaviour Dissonance. The appropriate modification of behaviour may reduce the above dissonance.
6. Teachers who have had experience in some Inservice Education Programme seem to have more Attitude Behaviour Dissonance. The Inservice Education must be innovative to reduce the above dissonance.
7. Teachers who have the habit of reading Professional Literature have less Attitude Behaviour Dissonance and Confirmed Behaviour Dissonance. The other teachers may be advised to read all Educational issues which may carry the Innovation.
8. Teachers who are having job satisfaction show a tendency to have more Attitude Behaviour Dissonance. There are several areas of opinion where it is very difficult to change the teachers but there are instances where teachers Attitudes and opinion do change. In the presence of this dissonance, active seeking out of information would produce consonance with the existing cognition.

9. A higher percentage of teachers working under principals having low Initiating Structure and Consideration showed a confirmed Behaviour Dissonance. The Headmasters may be advised to show greater consideration towards his staff members in implementing Innovations.
10. Teachers working in Closed Climate schools show a tendency to have a confirmed Behaviour Dissonance. The school principals are hindering the teachers work. If the climate is open the above dissonance can be reduced.
11. Teachers working under the principals who possesses Sociable and Impulsive Traits have more Attitude Behaviour Dissonance. It is very difficult to change the trait of the principals. Attitude Behaviour Discrepancy lies in the personality of the principals and the attitudes towards Innovation and Situation in which the Innovation is introduced need to be considered in order to predict behavioural outcomes.
12. Teachers possessing Sociable Trait have more Attitude Behaviour Dissonance. It is very difficult to change the personality of a teacher.

Agents should begin their activity with an Innovation that possess a high degree of Advantage, that is, consistant with teachers' existing beliefs and has a very likelihood of success. Therefore, the change agent should develop a positive general attitude towards change on the part of the teachers.

13. Teachers working in Machinery Schools seem to have a higher confirmed Behaviour Dissonance. In formal organisation, the teacher will change his attitude in course of time to confirm to his public behaviour though it may not change his organisational behaviour. The organisation must give enough time to adopt the Innovation.
14. Teachers working in Non-innovative schools tend show a high Attitude Behaviour Dissonance. Teachers in such oriented system are self activating, self-renevating and open to the new and active in enquiring about Innovation. The tension so produced can in the course of either change the members attitude to make them consonant with the behaviour required by the organisation or to reject in such a way that their behaviour becomes consonant with their attitude. Thus the individual may find ways to get round the order of authority and thus getting rid of dissonance by making his behaviour confirmed to his attitudes.

5.15 SUGGESTIONS FOR REDUCING DISSONANCE BASED
UPON FOREIGN FINDINGS :

We have seen in the study that a state of dissonance arises when two elements of cognition do not fit together because of various reasons such as inconsistency, contradictions, culture or group standards.

The presence of dissonance gives rise to a state of behavioural tension or inequilibrium of mind. Therefore, the presence of dissonance is always characterised by pressures to reduce or eliminate the dissonance, resulting in actions of varying intensities. The strength of the pressures to reduce the dissonance is dependent on the magnitude of dissonance.

If two elements are dissonant with one another the magnitude of dissonance will be the function of the importance of elements. The more valuable or important the elements, the greater will be the magnitude of dissonance. By changing the elements, the dissonance may be eliminated, but it is important to know how these changes may be brought about. There are various possible ways in which this can be done, depending upon the type of cognitive context.

The basic hypotheses stated by Festinger(1957).

- 1) The existence of dissonance being psychologically uncomfortable will motivate the person to try to reduce the dissonance and achieve consonance.

2) When dissonance is present, in addition to trying to reduce it, the person will actively avoid situations and information which are likely to increase the dissonance.

Since reduction of dissonance is a basic human process, it is not surprising that its manifestation is observed in a variety of contexts. The existence of dissonance is an every day condition in life.

When an opinion needs to be formed or a decision taken, some dissonance is almost unavoidably created between the cognition of action taken and those opinions or knowledges which tend to point to a different action. As soon as dissonance occurs there will be pressures to reduce it. These pressures to reduce dissonance will take the (1) form of change in action or change of a person's cognition about his behaviour by changing his action.

(2) The person may encounter difficulties in trying to change either his behaviour or knowledge. There is no guarantee that by this choice the person will be able to reduce or remove the dissonance.

All dissonance is not of equal magnitude. One obvious determinant of the magnitude of dissonance lies in the characteristics of the elements between which the relation of dissonance arises. The more these elements are important or valuable to the person, the greater

will be the magnitude of a dissonant relation between them. It is rare that no dissonance at all will exist within any cluster of cognitive elements. This is so because there are generally so many other cognitive elements relevant to any given element that some dissonance is the usual state of affairs.

THE REDUCTION OF DISSONANCE :

The strength of the pressures to reduce the dissonance, is a function of the magnitude of dissonance. The greater the dissonance the greater will be the intensity of action to reduce the dissonance and the greater the avoidance of any situation that would increase the dissonance.

In general, if dissonance exists between two elements, it can be eliminated by changing one of the elements. These changes may be brought about by several possible ways depending upon the cognitive elements involved and the whole cognitive context.

1) Changing a behavioural cognitive element :

When the dissonance is between the element corresponding to some knowledge about the environment and a behavioural element, the dissonance can be reduced by changing the behavioural element in such a way that it is consonant with the environment element. The simplest way to do this is to change the action or feeling which

the behavioural element represents. That is, if the behaviour of the organism changes, the cognitive element or elements corresponding to this will likewise change. This method of reducing or eliminating the dissonance is of very frequent occurrence. Our behaviour and feelings are frequently modified with accordance with new information.

2) Changing an environmental cognitive element:

It is possible to change the environmental cognitive elements by changing the situation to which that element corresponds. This is much more difficult to change than one's behaviour for it involves a degree of control over one's environment. Changing the environment itself in order to reduce dissonance is more feasible, when the social environment is in question, than when the physical environment is involved. The possibilities of manipulating the environment is limited.

3) Adding new cognitive elements :

In order to eliminate dissonance some elements must be changed. This is not always possible but a dissonance can be reduced by adding new cognitive elements. In the presence of such dissonance a person might be expected to actively seek new information that would reduce the total dissonance and avoid information which would increase the dissonance. It is also possible to add a new cognitive element which may reconcile two elements that are dissonant.

The presence of pressures to reduce dissonance does not guarantee that the dissonance will be reduced. The social support needed may not be available as also new elements which will reduce the total dissonance. The important point is that if dissonance is present, attempts will be made to reduce it. If this is not so one will observe symptoms of psychological discomfort so that the dissonance is clearly seen in the behaviour.

Resistance to reduction of Dissonance.

If dissonance is to be reduced or eliminated by changing one or more cognitive elements, it is necessary to consider how resistant these cognitive elements are to change. The major sources of resistance to change are different for the behavioural change and for an environmental one.

Resistance to change of behavioural cognitive elements :

We continuously modify many of our actions and feelings in accordance with the changes in the situation. But circumstances as stated below make it different for the person to change his action.

- 1) The change may be painful or involve loss. The magnitude of this resistance to change will be determined by the extent of pain or loss which can be endured.

2) The present behaviour may be satisfying or pleasant. The resistance to change would be a function of the satisfaction obtained from the present behaviour.

3) Making the change may simply be not possible. It may not be possible to change for a variety of reasons.

(a) Some emotional reaction which may not be under the voluntary control of the person.

(b) It may not be possible to consummate a change because the new behaviour may not be in the behaviour repertory of the person.

(c) The irrevocable nature of certain actions. The action has been taken and is not reversible.

Avoidance of Dissonance :

Under certain circumstances, there are strong and important tendencies to avoid increases of dissonance or to avoid the occurrence of dissonance altogether. This avoidance is important where, in the process of attempting to reduce dissonance, support is sought for a new cognitive element to replace an existing one or where new cognitive elements are to be added.

Personality differences with respect to fear

of dissonance and the effectiveness with which one is able to reduce dissonance are important in determining whether or not such avoidance of dissonance is likely to happen. This is a sort of self protective behaviour.

1) Changing or revoking the decision :

This concerns itself with the state of opinion that exists immediately after the decision has been made and before further experience accumulates. The decision could be revoked psychologically. This would consist of admitting to having made the wrong choice or insisting that no choice had been made for which the person had any responsibility.

2) Changing the attractiveness of the alternatives involved in the choice. This is the most direct and probably most usual manner of reducing post decision dissonance. Whether or not a person is successful in reducing dissonance in this manner will depend in part on his mental activity and in part on the availability of support of one kind or another for the changes he wishes to make in his cognition.

THE DIFFICULTY OF REVERSING DECISIONS :

If there is a change in attractiveness of alternatives following a decision such that the chosen alternatives becomes more desirable or the unchosen

alternative becomes less desirable or both, then there are additional consequences of this reduction in dissonance.

One of the major ways in which post decision dissonance can be reduced is by changing the attractiveness of the alternatives so that the discrepancy between the chosen and rejective alternatives is increased.

The theory states that the more cognitive elements there are corresponding to desirable features of the rejecting alternative, the greater would be the dissonance following the decision and hence greater the pressure to reduce dissonance. It may happen that if in some way the subjects had to make decision over again the second decision would be easier to make, since the two alternatives are now more different in attractiveness than there had been. If for some reason they had to to reverse their decision one would expect this to be a very difficult thing for them to do even though the initial decision may have been a close one.

On the basis of the verbal reports describing the process of making a decision Martin distinguished three types of decision.

1. PREFERENCE :

These decisions were characterised by a

clear Preference for one of the alternatives to the other.

2. CONFLICTS :

These decisions were characterised by considerable difficulty because the alternatives were so nearly equal in attractiveness.

3. INDIFFERENCE :

These decisions were characterised by lack of clear preference for one alternative over the other and also by indifference about the whole matter.

For the preference type of decision one could expect them to have difficulty reversing the decision. There were decisions that were made quickly, easily and confidently because the preference was clear.

In the other two types, there is no clear preference. Thus it is easy to reverse the decision. But as a result of dissonance due to reversion, the attractiveness of these alternatives could be changed. In the indifference type of decision, one could expect little pressure to reduce dissonance and little difficulty in reversing the decision. In the conflict type of decision there would be considerable dissonance. The pressure to reduce the dissonance would lead to

increasing the attractiveness of the chosen alternative or decreasing the attractiveness of the rejected alternative or both. If after this the subject was asked to reverse the decision he would find it difficult to do so.

Experiments conducted, produced results which can be examined from the point of view of the theory of dissonance. In those groups, where no decision is asked for, some person may have been persuaded by the lecture to go ahead and do whatever had been recommended. However, in the groups that were induced to make a decision, dissonance may have been created by the decision. Pressure to reduce the dissonance would then arise and the cognition would be changed. In otherwords, the effect on action would be a consequence of the successful reduction of dissonance following the decision.

VOLUNTARY AND INVOLUNTARY EXPOSURE TO INFORMATION :

The presence or absence of dissonance in some particular context area will have important effects on the degree of information seeking and on the selectivity of such information seeking. If dissonance may be reduced by adding new cognitive elements which produce new consonant relationships. One could observe, the seeking out of information which might reduce existing dissonance.

The degree to which this kind of behaviour manifests itself would depend upon the magnitude of the dissonance which exists and also upon the persons expectations about the content which any potential information source would yield. The various possibilities are as follows:

(1) Relative absence of dissonance. If little or no dissonance exists there would be no motivation to seek out new and additional information. There would be also no motivation to avoid source of information.

(2) The presence of moderate amount of dissonance. The existance of appreciable dissonance and the consequent pressure will lead to seeking out information which will introduce consonances and to the avoidance of information which will increase the already existing dissonance. When faced with the potential source of information the person does not usually know the exact nature of cognition which he would acquire from exposure to this information source. If he is led for one reason or another, to expect information which could produce cognition which will increase consonance, he will expose himself to the information source. If he thinks that the information acquired would increase dissonance, he will avoid it.

(3) The presence of large amounts of dissonance. There is a limit to the magnitude of dissonance which can exist in a system. If two cognitive elements exist in a dissonant relationship the maximum magnitude^{of} this dissonance can have is equal to the resistance to change of the less resistant element of the pair. If the dissonance becomes greater than the resistance to change then the least resistant element will change, reducing the dissonance. When a person whose dissonance is near the magnitude, he will actively seek out and expose himself to dissonance.

REACTIONS TO INVOLUNTARY EXPOSURE TO INFORMATION :

In this, a person is forcibly exposed to the information which if cognized would produce or increase dissonance. The person, though no voluntary action on his part has new information impinging upon him which if cognized could increase dissonance. Under certain circumstances a person would involuntarily become exposed to new information. These circumstances may be;

1. ACCIDENTAL EXPOSURE :

Simply through accidental exposure to some information dissonance may be introduced into this largely consonant system. This happens if the system of relevant cognitive element is characterised by a total or near total absence of dissonance and hence there should

be little or no avoidance of relevant new information which might impinge on the person. This kind of increase in dissonance through mere accidental exposure is not likely to happen frequently in instance where some dissonance already exists and a person is therefore careful.

2. FORCED EXPOSURE :

Some times new information and consequently new cognition is forced upon a person. This can happen in a variety of ways. Some knowledge is so wide spread that it is not possible to avoid it. It may also happen that unperceived consequences bring about new experiences which force the existance of new cognition. Forced exposure does not always produce dissonance but in the ordinary course of events it sometimes will.

3. INTERACTION WITH OTHER PEOPLE :

To the extent, that others with whom one interacts do not share one's opinion, these others are a potential source of dissonance. For example a person who has just taken some action may tell others about it to get support for what he has done. One of his audience may volunteer various items of information and opinion which are dissonant with the action being discussed. This type of thing occurs mostly when in trying to reduce dissonance by getting agreement of support of support from others creates dissonance in some one else.

DENIAL OF REALITY :

It sometimes happens that a large number of people are able to maintain an opinion or belief even in the face of continual definite evidence to the contrary.

Let us imagine a person who has some cognition which is highly important to him and also resistant to change. This might be a belief system which pervades an appreciable part of his life and which is so consonant with many other cognitions that changing the belief system would introduce enormous dissonance. If attempts at reduction of dissonance be acquired, new cognitive elements consonant with the original cognition are unsuccessful, one would expect an attempt to be made to deny, the validity of the event which gave rise to the dissonance.

He will however attempt to reduce the dissonance by discussion with others about the validity of the event. It is only when quite a large number of persons who associate with one another have the identical dissonance which cannot be resolved in easier ways than by supporting one another, they may be able to maintain the opinion that the event had not occurred or not happened.

5.16 SUGGESTIONS FOR FURTHER STUDIES :

Further Research Studies may be done consistently but with caution in this neglected field of

dissonance. The following suggested studies could be thought of:

The study of Innovation Dissonance which in the present study is confined to secondary schools, may be extended to Primary and Higher Secondary Schools.

A similar study can be undertaken in Technical Education, Medical field and Engineering field. Studies can be undertaken concerning one aspect of the process of dissonance reduction namely obtaining new cognition which will be consonant with existing cognition.

A study on the reduction of forced decision dissonance by changing the attractiveness of chosen and rejected alternatives in innovation can be studied.

Dissonance resulting from post compliance and how it may be reduced by changing private opinion to bring it into line with the outward behaviour may be studied.

Data pertaining to selectivity in exposure to propaganda, information and mass media can be interpreted along the lines of attempted dissonance reduction.

The presence or absence of dissonance in some particular content area will have important effects on the degree of information seeking and on the selectivity of

information seeking. A study may be undertaken on voluntary exposure to new information.

The existence of disagreement among members of group on some issue or some opinions if perceived by the members certainly produce Cognitive dissonance. Therefore the reduction of dissonance stemming from social disagreement may be studied.

The existence of dissonance in a person leads to the process of social communication by which he attempts to reduce the dissonance. This can be analysed by collecting data about change in opinion according to initial dissonance.

5.17 CONCLUSION :

Dissonance is a characterisation of relationship between cognitive elements. Therefore, the existence of dissonance and its determination depends upon the specification of the Cognitive elements which are under considerations.

In the educational field, the cognitive elements could take the form of the behavioural change, when an innovative process is initiated. In today's world of changes in the field of scientific and technological advancements and in all branches of learning, there is bound to be innovative changes in methodology, learning process and so on. When faced with these tremendous changes,

the teacher is faced with the challenge to his erstwhile attitude and belief, A state of dissonance is a naturally corollary to these factors.

To reduce this dissonance, it is the duty of the teacher to adapt specific changes in behaviours, beliefs and attitudes to reduce the Cognitive Dissonance.

CHAPTER : VR E F E R E N C E

- CARVER, Fred D., and Sergiovanni, (1969) Eds.), "Organization and Human Behaviour : Focus on Schools, Mc Graw-Hill Book Co., New York.
- DARJI D.R. (1975), "A Study of Leadership Behaviour and its Correlates in the Secondary Schools of Panchmahal District", Ph.D. Thesis, M.S. University of Baroda, Baroda.
- GRIFFIN, W.H. AND Pareek, Udai, (1970): "The Process of Planned Change in Education," Somaiya Publications Pvt. Ltd., Bombay.
- HAVELOCK, R.G. (1975), "Planning for Change" : Through Dissemination and Utilization of Knowledge, GRUSK, The University of Michigan, Ann Arbor, Michigan.
- HAVELOCK, R.G. and Muberman, A.M., (1977), "Solving Educational Probles : The Theory and Reality of Innovation in Developing Countries, UNESCO, Paris.
- MUBERMAN, A.N., (1973), "Understanding Change in Education", An Introduction, UNESCO, Paris.
- MILLER, R.I., (1967), (Ed.), Perspectives on Educational Change", Appleton-Century-Crofts, New York.

- MUKHOPADHYAY, N. (1974) : "Resistance to Educational Change in West Bengal", Institutional Project of CASE, M.S. University, Baroda.
- PANCHAL B.R. (1977), "A Study of Innovative Proneness of Teachers Education of Secondary Teachers' Training Colleges of Gujarat", Ph.D. Thesis, M.S. University, Baroda.
- PATHAK U.R. (1974) : "System of Educational Innovations by Resources Agencies in Gujarat", Ph.D. Thesis, in Progress, M.S. University of Baroda.
- PURANI, C.J., (1979), "Indian Teacher as a Change Agent", Ph.D. Thesis, M.S. University of Baroda, Baroda.
- ROGERS, E.M. AND Bhoemaker, P.E., (1971), "Communication of Innovations", A Cross-cultural Approach, The Fress Press, New York, Collier-Macmillan Ltd., London.
- SHARMA M.M., (1974) : "A Survey of Educational Innovation in Rajasthan and their Impact on Teacher's Professional Growth and Pupils' Achievement : Ph.D. Thesis in Progress, M.S. University of Baroda, Baroda.
- YUPA, W (1975), " A Study of Innovation and change in Secondary Schools in North-East of Thailand with regard to Innovation Process and its communications of resource Agencies", Ph.D. Thesis in Progress, M.S. University of Baroda, Baroda.