CHAPTER II

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CHAPTER 2.10 INTRODUCTION

The last few decades has seen a dramatic expansion of communication research. In the field of industry "Innovations" have found a place in this country for the last fifty years. However, there has been very little efforts to apply the scientific method to the study of the "Innovation" in the field of education.

The past decades has witnessed repaid changes in the field of technology, industry, occupational Geography, Population and man power. The basic and root cause of all the above changes is to be found in Education.

To Quote Adiseshiah (1965) "Education is a Powerful instrument for change in society. The progress of the country can be measured with the quality and quantity of the schools."
To discussing education, we can go one step further and say that education is a more powerful instrument for change in society than any other field, thus giving importance to the development of the world and without which no progress can be made. "Innovations" in education then are concepts sought and gratefully welcomed by the world in which we live.

As recommended by the Education Commission of 1964-66 new changes introduced in our Educational institute can be said to be modernization of curriculum, examination reforms, developing modal text books, development of instructional materials, improvement in the methods and techniques of teaching through refresher courses, new programme for the teaching of science and mathematics and co-curricular activities. In spite of these efforts the standards of education are gradually deteriorating which in turn is reflected in the low achievement of pupils. In order to combat this evil, INNOVATION in education becomes essential and important in all aspects of education in today's world.

As regards, Educational research done on Innovation, it is found that while a large number of researches have been done in other countries, there is available only a limited number of researches in this country and these seem to be confined mainly to the Educational researches done at C.A.S.E. at Baroda.
Previous researches on “Innovations and its Correlates” are discussed in this chapter. The main aim being to review the researches undertaken in the area of “Innovations and its correlates”. In other countries innumerable researches have been devoted to the field of “Innovations and its correlates”. The present review will cover researches attempted on this aspect.

Being a Premier study on “Innovation Dissonance and its Correlates” in India the Investigator is inclined to cite the various researches on (1) INNOVATIONS; (2) DISSONANCE; (3) LEADERSHIP BEHAVIOUR; (4) ORGANISATIONAL CLIMATE and (5) TEMPERAMENT.

2.20 REVIEW OF RELATED LITERATURE:

Rogers (1962) stated that many individuals know many innovations, but they have not adopted them. One reason according to him is that though the individual knows about the innovation, he feels that the innovation is not useful or relevant in that particular situation or in his situation. Therefore, attitude towards innovation, influences or intervcnces between the knowledge and decision function. The individual seeks to reduce the dissonance factor by change in his attitude.

Festinger (1964) summarises the results of three
field experiments in which change in attitude did not result in behavioural change.

Rokeach (1968) gives some confirmation support for this dissonance behaviour. He argues that attitude-behaviour discrepancy lies in the personality of the individual and the attitude towards innovation and situation in which the innovation is introduced need to be considered in order to predict behavioural outcomes.

Havelock (1969) reports that teachers resist changes which leave them with less control over the classroom or over the students in it. Basically the technique is that of introducing innovation by steps which are calculated to cause the least amount of resistance and disruption.

According to Watson (55) Innovation = Demand/Resistance. He has set out a stage theory of resistance to typical innovations i.e. (1) few take the change seriously (2) resistance can be defined and its power appraised (3) resistance is mobilised (4) resistors are now pictured as cranks, nuisances and (5) advocates now resist new change.

Watson pointed out the following forces of resistance (1) the school administrator who after a short period of sensitivity training is temporarily more open and receptive to suggestions from teachers (2) teachers despite in-service-courses and supervision continue to teach
as they themselves were taught in childhood. (3) Selective perception and retention (4) Insecurity and regression.

Cruskin (23) pointed out that (1) Individuals with less confidence in their abilities are less willing to try out innovations. (2) the authoritarian personality has a strong tendency to accept directives from dictatorial leaders and a rigid rejection of any changes emanating from outside sources (3) Our expectations of failure or success (when initial changes are exhausting) increases resistance.

Eichholz and Rogers (1957) carried out the attitude survey of resistance to new educational media and noted the following types of "rejection responses" (1) Rejection through ignorance (2) Rejection through default (3) Rejection by maintaining the status quo (4) Rejection through social mores (5) Rejection through interpersonal relationships (6) Rejection through substitution (7) Rejection through fulfilment and (8) Rejection through experience.

Another study in U.S.A. (1960) revealed that the opponents were of four types (1) those who favoured the innovation, but disagreed with the form it should take (2) those who created independent groups of their own to defeat the innovation. (3) those who were inspired or coerced into opposition by the second group (4) those whose resistance was only incidental or situational, their real
Rogers (1957) in his analysis on diffusion of innovations comes up with a useful word picture of the innovator:

1. Innovators have relatively high social status
2. Innovators are generally young
3. Impersonal and cosmopolite sources of information are important to innovators
4. Innovators exercise opinion leadership
5. Innovators are likely to be viewed as deviants by their peers and by themselves.

Havelock and Huberman (1967) arrived at the specific barriers to innovation:

1. Personal barriers—there were insufficient rewards of those who would be implementers. Persons who in key roles were not open to change their attitudes or behaviour.
2. Social and cultural barriers—poor climate for showing ideas openly. Under social and cultural factors, the most significant item was conflict among ideologies about change and other noteworthy items were 'poor climate for sharing ideas openly'.

Recent American study (1977) has shown that the innovativeness of a given school system can be measured by the type of interpersonal relationships of norms perceived to exist in that system, e.g. the principal as perceived by the professional staff, the type of intervention among
the professional teaching staff, and the effectiveness of professional staff meetings in solving problems etc. Certain types of inter-personal relations or such 'openness' and 'trust' as measured by conventional attitude test can maintain or create psychological climate for change and innovation.

Huberman (1973) pointed out that teachers have no institutionalized procedures for learning about the new practices of colleagues. There is also resistance to adopting another teachers' ideas. Moreover school personal do not enjoy the type of human relations training used in industry and commerce to stimulate awareness and gain acceptance of new ideas and methods.

2.30 STUDIES DONE IN INDIA ON INNOVATIONS:

In the early part of the 20th century there has been no study regarding Innovation's in India. The studies are of recent origin. The M.S. University of Baroda identified the above area of study for intensive and sustained analysis in 1970.

There have been great changes in the educational structure, curriculum, teaching methods etc. in the post-independence era of India. The Secondary Education Commission (1952-53) recommended higher secondary schools, multipurpose schools and dynamic methods of teaching, establishing guidance service etc. The India Council
adopted it for secondary Education. Accordingly extension services to schools, examination reform, improvement of science education and experimentation by teachers were innovated. A number of measures were recommended for the improvement of school education such as work experience, school complex, institutional planning, etc. by the Education Commission (1964-66). The central and state authorities introduced innovation in Education. New steps were taken at the state level to spread the concept of innovation in education.

Though the above mentioned changes were taken to adopt "Innovation" in schools there was no appreciable change in schools. Many schools did not pay much need or attention to "Innovations". Some schools even neglected "Innovations". Seeing the above facts the commission concluded that the pace of change in Indian Education was alarmingly slow and there was no planned attempt to study the process of educational change.

Indian Universities and Organisations did not take any further steps to introduce "Innovations" in Schools. However, the NCERT placed great emphasis on spreading "Innovations" in Education in Secondary Schools, and for this purpose conducted seminars regarding "Innovations".

The NCERT (1967) conducted the first seminar
on "Educational Innovations" and their diffusion in Hyderabad. The Departments of Education Psychology, Sociology, National Institute of Community Development and Gandhian Institute participated in that seminar. After the Hyderabad Seminar other Indian Universities came forward to undertake studies on Educational Innovations and their diffusion. In order to start a centre for the study of Educational Innovations in Sardar Patel University, the U.G.C. was requested for financial assistance. This, however, was not accepted by U.G.C. By 1969, the S.P. University completed one study on the above subject.

In 1973 the CASE (Baroda) undertook systematic studies in the area of innovations and educational change process. The then Research fellow Mukhopadhyay (1973) made a brief research study on the diffusion of Educational Innovations in India. His review describes the trend of researchers selection of variables, research design, instrumentation, sampling, statistical procedures and lastly findings.

Few diffusion on innovation studies by Agricultural Colleges at post-graduate level have been made. The Indian Agricultural Research Institute had done some work in this connection. Pareek (1968) in his directory of "Behavioural Sciences Research in India" has completed nearly one hundred and fourteen studies in the area of
Adoption and Diffusion of Innovations from the year 1925-55. Pareek's researches are in the area of agriculture. The Osmania University was the first University which started its study of "Innovation in Education" in India. Following that many institutions conducted seminar.

Rao's (1967) study reflected "Innovations" although the main point of focus has been to find out the factors contributing and inhibiting the diffusion process. According to him more innovative schools have better facilities such as audio-visual aids, special rooms, books and Magazines for students and teachers. In Indian Education inspite of the efforts of various educational as well as non-educational agencies we find limited number of studies on "Innovation Diffusion". Rao's (1967) study reveals that single sex institution are more innovative than co-educational schools. According to him the more Innovative institutions are schools with teacher-pupil ratio of twenty five (25) pupil per teacher and a school strength of 500 to 750 which is under the Management of Universities, Missionaries and Industries. His study revealed that higher secondary and Multi-purpose schools are more Innovative than Ordinary high schools. It also revealed that the academic and professional qualifications of the headmaster influence the diffusion process. There appears a contrary view revealed by Buch (1972) to that of Rao (1967) in that there is no relationship between
the qualification of the head Master and adaptibility of the school. Buch concluded that the school with more trained qualified staff are more innovative. We can find "Innovations" where there are better qualified and trained teachers. Innovativeness of the school system is not significantly related to age of the staff. Rigid Government rules about syllabus and text books, inadequate grants, too much of office and organisational work on the part of the staff, pupils from backward classes and over Crowded classrooms are some of the important factors which inhibit innovativeness of the school system.

One of the earliest attempts in India, regarding the study of Psychological and Organizational Correlates of innovation is by Bhole (1969). According to her, cosmopoliteness and age of teachers are significantly related to acceptance of innovation. Instead of improvement in school library and child guidance clinic, she advocates innovations in science club, deputation of teachers to refresher courses and teaching with audio-visual aids. She finds that the school with high adoption rank have less percentage of teachers acceptance. She comes to the conclusion that there is no relation between, the adoption of innovation by the head master and that of the teachers of the school.

According to Bhogle (1969) well-experienced,
high salaried and low rate conflict staff are more innovative. She found that large and multi-purpose schools are more adoptive. Thus, from the above analysis we can conclude that innovative acceptance is an institutional factor influenced more by the personality of the head masters and principals than the teachers. The Principal's, Director's or Headmaster's leadership style is a decisive factor in the process of diffusion of innovations.

On the while, Bhogle's (1969) thesis says that the individual experience in the Profession and his innovativeness are related to each other in the positive sense. That is to say the more experienced individual is productive of more change.

Sardar Patel University, Vallabhvidyanagar, Gujarat (1972) collected 37 studies on innovations in the Secondary Schools of Gujarat, under the broad heads of school administration, school organisation, Curriculum, Classroom teaching, examination, Physical education and co-curricular activities. This study deals with innovative practices and innovative categories. This study does not deal with the teachers or their psychological reactions towards the change. Some important factors revealed by this study are that the headmasters' leadership style, financial position of the school and value system of the institution influenced the diffusion process.
Rai (1972) briefly studied thirty different aspects of teachers under the several heads of demographical variables, i.e. institutional category, communication behaviour, psychological and personality variables, socio-economic status, and organizational climate. Rao (1962) and Bhogle (1969) studied the aspects of teachers characteristics influencing the diffusion process.

It was found from the study that there are 10 variables significantly related to the 'time of awareness'. Those variables are viz. (i) age (ii) vertical communication (iii) perceived frequency of horizontal communications in general (iv) opinion about innovation (v) teachers' perception of students' attitude towards the innovation (vi) exposure to mass-media (vii) professional communication behaviour (viii) professional orientation (ix) Exposure to wider environment and (x) socio-economic status.

Some other variables that contributed to the prediction of "the time of awareness" at .05 level of confidence were: (i) Age (ii) Socio-economic status (iii) Mass-media exposure (iv) Self-designated opinion leadership (v) perceived change-orientation of principal and (vi) teachers' perception of students attitude towards innovation.

Six variables related to the factor of
'time of adoption' are again the same as the above last six except the self-designated opinion leadership in the place of which 'experience' of adopters is found out.

With regard to 'internalisation' process of innovation, the following six variables were found to be correlated at .05 level viz. (i) Teachers' perception of the benefit for the students from the innovation (ii) perceived change-orientation of the principal (iii) ascribed opinion-leadership (iv) perceived cohesiveness of the staff (v) Organisational climate (vi) role satisfaction (vii) need for autonomy.

The next one out of the 10 factors that were identified and reported earlier, is 'the process of self-perceived change orientation' to which the following variables were found correlated at .05 level: (1) Experience (2) perceived psychological distance between staff and principal (3) the perceived frequency of horizontal communications about the innovation and (4) attitude towards teaching profession.

Rai's (1972) finding about the eight predictors of the diffusion process are as follows: (1) Teachers' perception of students' benefit (3) ascribed opinion-leadership (4) exposure to wider environment (5) Socio-economic status (6) teachers' perception of students' attitude towards the innovation (7) experience and (8) general exposure to mass media.
The main objective of a study of the innovation and change in schools could be to provide considerable guidance and show a method to determine or control the qualities and elements of the leaderships in schools in such a way that improvement in the process of innovation is effected. It is for effecting this that a right knowledge and understanding of the process of innovation diffusion is required.

Buch (1972) gives her ideas, in the study "on the Headmasters Personal and Attitudinal Aspects". In this study she points out the conditions that promote adaptability in Indian Schools. Her study is mainly connected with the Principals characteristics as related to school adaptability. She found no relationship between school adaptability and variables like experience, long duration of service in the same school and role satisfaction of the principal. Among these variables studied by her only thirteen variables have been found to be predictors of school adoptability yielding 'R' of 0.7536 and a variance of 56.8 percent. These variables are inter-school visitation, self-rated administrative ability, parents involvement, professional meetings attended, feeling of security, training college support of innovative teachers, rating of administrative ability, community involvement, relationship with training college, personal interest of the management and so on.
A study on "Change in Secondary Schools of Gujarat" was conducted by Buch and Buch (1973). The main points of the study are curriculum reconstruction, adoption of new methodology of classroom procedures, examination and evaluation, vocational guidance, teacher training etc. The above mentioned study also deals with weekly and periodically regular staff meeting, internal assessment and weightage.

Buch and Buch (1973) in their study point out that experimental attitude of headmasters, academic interest of schools and the authority dictation are major promoters of innovations. The teacher's negative attitude and lack of efficiency, shortage of funds and non-availability of sources (academic) are responsible for discontinuance of innovations. The discontinuance of innovations are due to transfer of teachers in change, loss of interest and zeal of teachers.

Bhagia (1973) study of "perception of characteristics of innovations as related to their diffusion in schools of Gujarat" emerged with the findings given below:

Bhagia's (1973) findings lay much stress on the adoption and diffusion of an innovation in schools which are very much related to the headmaster's perception of the utility and the intrinsic and situational characteristics
of the innovation. Therefore the success in the adoption and diffusion of an innovation is very much dependent on the perception and the favourable disposition of the headmaster in the matter. She has also found that the non-acceptance of a number of a good innovations due to inadequacy of proper perception is mainly due to the inability of the agencies that are concerned with the implementation of change to create the right psychological orientation among the potential adopters.

Bhagia's (1973) study took into consideration the following fourteen innovations: (1) Instructional Planning (2) Unit planning (3) Objective type tests (4) educational and vocational guidance (5) cumulative record (6) science Club (7) Work experience (8) co-operative store (9) Programmes for gifted children. (10) Weightage to periodical tests in annual promotion (11) hobby centre (12) parent teacher association and (13) regular and periodical staff seminars for discussion on academic problems.

Principal's ratings on a five point scale on each of these innovations in respect of 20 characteristics were obtained. These twenty characteristics were:
(1) academic effectiveness (2) adaptability
(3) associability (4) burdensomeness or load factor
Bhagia, based on her findings, made the following suggestions: (1) The principals should be oriented towards the need for innovation more in terms of total quality improvement of the school than only the academic effectiveness (2) All the desirable innovations should be properly patronised by all the different elements of the resource system and the management (3) positive encouragement to the adopters about the feasibility of an innovation that is proposed for adoption, should be given (4) proper guidance and the necessary support from administration are the two important prerogatives for successful diffusion of an innovation (5) proper planning should be ensured for any successful adoption of an innovation even before the process begins.

Doctor (1974) has also made a study in similar lines to identify factors related to innovation and change in secondary schools of South Gujarat. The highly innovative schools, according to Doctor, are found to possess the following characteristics:
(1) clarity in perception of its philosophy and goal
(2) better physical amenities (buildings etc.)
(3) higher innovative proneness of principals
(4) Low number of non-Innovative teachers
(5) higher mean score of the upward category for the adopters
(6) higher scores on the involvement of teachers
(7) Lower score of downward shift for adopters
(8) higher score on the total evaluation of the school.

It is found from Doctor's study that the factors causing change proneness are (a) Dissatisfaction of the staff (b) headmaster's key role in innovation (c) identification of a few innovators and laggards (d) mental calibre of the innovator (e) proper planning (f) appreciation (g) freedom (h) encouragement (i) involvement and co-operation (j) love and dedication for profession.

Dave (1974) concluded that agencies such as Teachers' Colleges, Educational Inspectors and foreign Experts do not seem to have played a significant role in bringing about educational change. His theory of Curriculum change in Secondary schools found that local Autonomy, Counseling and guidance in Extension Services Departments, and Principals' leadership are the more powerful facilitating factors than availability of material and technical aid, Teachers workshop and foreign Expertise.
Pillai (1973) explained the relationship between Organisational climate and staff morale and innovativeness of the school and pupil performance. She concluded that openness of the climate and higher staff morale are significantly related to school innovativeness and Pupil Performance.

The main aim of Agarval (1974) was to find out whether there were certain other characteristics of the teachers which are related to their innovative proneness. His study contains a correlational study of 15 variables, namely the five independent variables, of age, educational Qualifications, vacancy in training, mobility and sex. The ten dependent variables of teacher morale are teachers rapport with principal, satisfaction with teaching, rapport among teachers, teachers salary, teachers load of work, Curriculum issue, teachers status, Community support of education, School facilities and community service. In her study, she pointed out that: (i) the mean score of the innovative Proneness of male teachers was higher than that of the female teachers (ii) the mean scores of the two independent variables of male teachers was higher than that of female teachers. (iii) the mobility of male teachers was significantly related at 0.05 level with the criterian variable, whereas the mobility of female teachers was not related at any level (iv) four independent variables, namely age, sex, educational Qualifications and vacancy in
training did not have any significant relationship with innovative proneness and (v) the "sex variables, namely teachers' rapport with principal, teaching satisfaction", teacher salary, community support of education, school facilities and services and community pressures predicted upto 72.3% of the total variance of innovative proneness.

The main objective of Panchal's (1977) study were: (1) to design and validate an Innovative-Proneness Scale (I.P.S.) that will measure Innovative Proneness of Teacher Educators of Secondary Teachers' Training Colleges of Gujarat; (ii) to study the Innovative-Proneness of the Teacher Educators of Secondary Teacher Training Colleges of Gujarat; (iii) to find out whether there are certain other characteristics of the Teacher Educators which are related to their innovative proneness; and (iv) to study the factor analysis of the scale developed by the author.

Major Findings:

(1) The age of Teacher-educator does not bear significant relationship with the components of 'attitude to innovation'.

(2) Sex of the Teacher-educators does not bear any significant relationship with either "situational characteristics or "Innovation Characteristics", similarly
it bears no significant relationship with any of the components of these two aspects.

(3) More experienced teacher-educators perceived the importance of 'teaching resources' at a higher attitude to innovation.

(4) Teaching experience of teacher-educators have nothing to do with 'change related values and its components'.

(5) The professional qualifications have nothing to do with "attitude to innovation" as a whole.

(6) The professional qualifications have no significant relationship with "situational characteristics" and "innovation characteristics" either taken together or taken separately.

(7) The mobile teacher-educators show significant concern with "teaching resources".

(8) The mobile teacher-educators are more 'venturesome' and are more prone to change as compared to the immobile counterparts.

(9) Inservice education of teacher-educators is significantly related with 'attitudes to innovation'.

(10) Inservice education of teacher-educators shows significant concern with 'teaching-learning process'.
Inservice education is significantly related with 'staff norms', 'system norms' and 'cosmopoliteness'.

Again, inservice education has shown significant concern with 'change related values'.

Reading habits are significantly related with 'complexity' and 'compatibility'.

Professional job satisfaction is not significantly related with 'attitudes to innovation' and its components.

Professional job satisfaction is highly and significantly related with 'traditionalism'.

Purushottam (1979) in his study of innovative educational institutions at secondary level found that
(i) adequate goal focus in a system is able to bring an increased role awareness in the members of the system tending to make the system more dynamic
(ii) increased linkage with resource system makes the system more modern;
(iii) higher is the frequency of contacts with as many outside persons and agencies as possible, more is the cosmopoliteness and less is the Localiteness in the system members,
(iv) when the innovation-decision is made by the members of a system, there is higher rate of member-acceptance of these innovative ideas;
(v) a tradition of collective innovation decision in a system tends to promote
the innovation-acceptance among its members as against an authority decision; (vi) the schools having downward flow of direction from superordinates to subordinates, suffer a poor organisational health that results into frequent discontinuance of innovation; (vii) support from the administrative unit to the adoption unit promotes the rate of adoption of an innovation; (viii) resourcefulness of the headmaster in a system enhances his source credibility level among the headmaster of the adoption unit; (ix) a headmaster's client-oriented approach brings about source-receiver homoplity in the system; (x) care to assess the 'relative advantage' of an innovative practice before suggesting it for adoption on the part of the headmaster averts dysfunctional consequences; and (xi) the success of change agents (the headmaster) is positively related to his efforts in increasing his clients' abilities to evaluate the innovative practice.

Purushottam (1979) has touched the Miles (1965) concept of organisational health. According to Miles (1965) in general terms, a healthy organisation not only survives its environments but continues to cope adequately over the long wave and continuously develops and extends its surviving and coping abilities. However, in scanning Miles' list, we should point out that social psychologists have only begun in recent years to design instruments which can measure the presence or absence of these
properties: Goal Focus, Communication Adequacy, optimal power Equalization, Resource Utilization, Cohesiveness, Morale, Innovativeness, Autonomy, Adaptation, and Problem-solving Adequacy. In our country studies on 'school Organisational Health are yet to be launched upon. A healthy system would tend to invent new procedures more towards new goals, produce new kinds of products, diversify itself and become more rather than less differentiated over time. In a sense, such a system could be said to grow, develope and change, rather than remain stagnant.

Again Purushottam (1979) has touched 'cosmopoliteness', 'Localiteness', 'administrative support' in the context of the innovativeness of the members of the school system while the present investigator has incorporated these factors as the components in the 'Innovative Proneness Scale' for Secondary Teachers to locate dissonance state.

Rameshchandra Sharma (1979) in his study of the characteristics of the Resource system and the process of developing and communicating innovation and their impact on adoption process identified the characteristics of educational resource systems, the process of developing innovations and the process of communicating innovations which affect the level of adoption of innovations. He has pointed out that the important characteristics of the educational innovations are adoptability, associability,
complexity, dimisibility, effectiveness, cost economy and time economy. The characteristics of the educational resource systems affect the level of adoption of innovation at .01 level. (2) The linkages between educational resource systems and their clients affect the level of adoption of innovations. (3) To be effective, the resource system needs a high degree of structure in terms of meaningful division of labour and co-ordination of efforts. (4) The openness of the resource system affects the level of adoption of an innovation. (5) The proximity factor of educational resource systems affects the level of adoption of innovations and (6) Synergy factor of education resource systems affects the level of adoption.

2.31 LEADERSHIP BEHAVIOUR - INDIAN STUDIES:

Doctor (1973) in her study on factors related to innovations investigated and noted that (1) The principal plays the key-role in the acceptance of innovative ideas and in making the school highly (or) poorly innovative and (2) Satisfaction among the teachers also play a significant role in implementing innovations.

Joshi, D.C. (1972) in his study on innovation and change in Teachers' colleges pointed out that the acceptance and resistance of innovation depends on
situation and facilities in the institution and leadership of the head.

Sharma, M.L. (1972) has pointed out that headmasters' effectiveness was a significant predictor of organisational climate. Principals' effectiveness and teachers' satisfaction was positively related to schools' organisational climate.

In another study (1972) Sharma and Shah found that different climate type schools varied significantly in respect of the 'Initiating Structure' of the leadership behaviour of school principals.

Perham and Sharma (1972) attempted to study the effect of different types of school climate on the consideration behaviour of their school principals.

Patel, B.N. (1974) submitted his thesis on "A study of Leadership for improving Instructions in High Schools of selected Districts in Gujarat". He studied 162 schools sampled from Bulsar, Surat and Panchmahal Districts. The following points were noted by him:

(1) In open climate schools, the principals demonstrate effective leadership.
(2) In Autonomous climate, the principal is a perfectly democratic leader.

(3) In controlled climate schools, the leadership is determined and firm. He sees that teachers work hard and fulfil their taste achievement.

(4) In familiar climate, the principal makes little attempt to provide leadership opportunities to teachers.

(5) In the Paternal climate schools, the leadership of the Principal further deteriorates. He works hard.

(6) In closed climate, the does not provide motivation to teachers.

(7) There is inter-relationship among organizational climate, leadership and teachers' morale.

(8) There is a significant relationship between Qualitative categories of school and organizational climate.

Mahajan (1970), in his study, has reported that many Headmasters of schools have failed in their academic leadership and as a consequence in the administrative leadership traits also.

Darji (1975) submitted a dissertation for Ph.D. on "A study of leadership Behaviour and its correlates in the Secondary Schools of Panchmahal District". The
objective of the study was to measure the inter-relationship among leadership behaviour of the principals of secondary schools and organizational climate. His investigation covered hundred randomly selected high schools of Panchmahal District of Gujarat. His impressive and worth noting findings were:

(1) the relation between teacher morale and the two dimensions of leadership behaviour, namely 'Initiating Structure' and 'Consideration' was significant.

(2) Consideration qualities of the head differ according to the nature of the perceived roles in relation to the organizational set up of the schools.

The other major findings are:

(1) Pupil performance is significantly better in open and autonomous climate schools than that of schools of other climates.

(2) Openness of climate facilitates the school to adopt new practices in larger numbers and in shorter time.

(3) Out of the eight dimensions of the climate, four, viz. esprit, thrust, disengagement and hindrance are significantly related to pupils' performance.

(4) The innovative ability of the school is significantly influenced by the three climate dimensions, viz. esprit, thrust and disengagement.
and (5) There is high correlation between the climate and morale indicating that they are highly dependent on each other.

Sharma (1968) found no significant difference in climate between the Government and private secondary schools of Rajasthan.

Buch and Rai (1972) found from their comparative study of organisational climates of secondary schools that there are significant differences on the dimensions - Hindrance and Consideration. Open climate schools in Rajasthan differed from similar types of schools of Gujarat. Gujarat schools were found to have higher mean score on 'Hindrance' than those of Rajasthan schools. The controlled climate in schools of Rajasthan score better in 'Production-emphasis'. The familiar climate showed difference in their mean scores on hindrance, intimacy and production emphasis. The closed climate in schools of both states showed significant difference in their mean scores on the sub-tests of intimacy and production "emphasis".

Kumar (1972) found that different organisational climates in schools have different effects on certain aspects of student behaviour. Personal adjustment of pupils are distinctly superior in the schools with open climate. This pupil factor shows deterioration along with the difference in degrees of schools in their climate.
Pillai, K. (1973) in her study Organisational climate, Teacher morale and school quality, Ph.D. thesis, M.S. University of Baroda, stated the following points:

1. Pupils' performance is better in open and autonomous school climate.
2. Openness facilitates new ideas.
3. Climate and morale are highly dependent on each other.
4. There is a positive correlation between openness of climate and performance of the school.

Pillai, K. (1974), in her paper on "Organisational Climate and Innovativeness of the school", stated that schools of different climate types do not differ significantly in their innovative ability and there is a positive correlation between Openness of climate and innovativeness of the school.

Sharma M.D. (1973) in his Ph.D. Thesis M.S. University, Baroda on "An investigation into Organisational climate of Secondary schools of Rajasthan" reported that schools of different climate types were found to differ significantly in terms of leader satisfaction. Sharma
(1971) also published an article on "Organisational climate of the schools and Academic Achievement in the Indian Journal of Psychometry and Education. In this article he reported that there was a positive relation between Organisational climate and academic Index of the schools. Sharma (1972) in his unpublished research report Baroda, CASE "Prognostigating school climate" pointed out that Headmaster's effectiveness was a significant predictor of Organisational climate.

Sharma found negative correlation between
(i) Faculty age and espirt
(ii) faculty state of the present school and aloofness
(iii) teacher satisfaction and disengagement
(iv) teacher satisfaction and hindrance
(v) Leadership behaviour of the principal and disengagement
(vi) Leadership behaviour of principal and hindrance
(vii) effectiveness of principal and hindrance
(viii) principal's effectiveness and disengagement
(ix) school climate and faculty age
(x) School climate and faculty experience.

The major findings include (i) there was no significant difference between the climates of (a) Urban and rural schools (b) Government and Private schools (c) Girls and Boys schools (2) The school climate is independent of variables such as school size, state-experience and the experience of the headmaster.
Scientific research in Innovations is found to be a recent development. There seems to be very few efforts made to apply scientific method to the study of the "Innovation" process until the 20th Century. It must also be stated that in the early stages only a few individuals were receptive to new ideas and changes. With the passage of time, Innovations have come to stay and be accepted.

More than five hundred studies including education have been summarised by Rogers (1962). His studies in the field of education contribute very little to the understanding of the diffusion of ideas. However, so far as the educational field is concerned, Roger's analysis of adoption process in different research studies has proved useful.

Miles (1964) at the University of Oregon gives many examples for change in American schools in 1964, showing that American school superintendents adopted new Innovations. Carlson (1952) analysed the behaviour aspect of the school superintendents to discover what caused them to adopt "Innovations".
Rayan and Grass (1950) and Beal and Rogers found that the "rate of awareness" of knowledge for an innovation is more rapid than its "rate of adoption".

Ross (1962) in his study emphasised the seriousness of the need for an innovation as an indication of its "Relative advantage". The most related factor to innovation is the "economic resource" as it is reported by Ross from his review of a number of studies made in 1958. Ebey (1940) feels that the headmaster is very often the change agent as in most of the innovations.

Hoffer and Stone (1952) have studied the change agent who is often expected to behave in a particular way by the change system and at the same time he is expected to behave in a different way by the client system.

Mead (1960) studied the compatibility of the innovations and stated, "Experience has taught us that change can be best introduced not through the centralised planning but after a study of the local needs".

Sasaki (1953) found that success of change agent is related to his efforts in increasing his clients ability to evaluate innovation.

Brickell (1953) and Teresa (1955) found that
expenditure in various activities of the school, to be a factor of resistance in innovation. Buley (1947) studied the areas like age, variety of experience, interest, property and reading habits of the staff in relation to school adoptibility.

Eastmond (1951) found out the following factors to affect adoptibility (1) Maturity of the staff (2) high professional training (3) outside school interests and (4) age and outbreeding.

According to Kelley (1960) the grade taught and the years of teaching experience were found significant factors in either adoption or rejection of an innovation. There are adequate supports in favour of (1) rejection through ignorance (2) rejection through default (3) rejection by maintaining status quo (4) rejection through social moves (5) rejection through inter personal relationship (6) rejection through logic (7) rejection through substitution (8) rejection through fulfilment and (9) rejection through experience. Raeph Haber's (1961) study of adoption of language laboratory among high schools in U.S.A. tells us that earlier adopters try innovation on a smaller scale than the later adopters.

Miles (1964) in his study, presented a rational for change, but cited many examples in American schools.
Gallagher (1965) suggested that "the better teachers in a given school are more likely to accept innovations than poor ones. Glines (1966) advocated that the strategy for change is simple, if the school's administration encourages innovative teachers to innovate. Once this occurs, good teachers find their motivation in personal satisfaction derived from using more effective ways of teaching. Chesler and Fox (1967) reported that teachers need to feel involved and potent in the organization in order to support educational change. They must know that they have the backing of their fellow teachers and their administrators if they are willing to try new ideas. Since change may involve public attention and risk, teachers who feel that they do not have support are less likely to go out for change of their own than more secure teachers. The teacher must feel capable to perform a new role which is required by the innovation.

Russell (1964) and Ardut (1968) reveal from their study that the process of adoption of an innovation is not related to the age of the adopters at any stage and early-adopters are no different from late-adopters in age.

Van-den-Bam (1964) states "The knowledge of persuasion effects of diffusion are considered as
intermediate steps in the process of decision making which leads to behavioural change communication channels of innovation-diffusion. He observes that mass-media channels are often important to make others aware of the new idea whereas inter-personal channels are important in changing the attitudes towards innovation.

Rogers (1973) and Shoemaker has looked at the source, message, channel, Receiver and Effects model to stress the importance of the elements in the diffusion of innovations.

Havelock (1973) has summarised the findings on innovation to describe the process models in his book "Planning for innovations". Havelock has described the Research and Development Model drawn on the basis of innovation processes of the Western Countries. This model explains the type of development of innovations which are usually born from a series of researches.

The research on the characteristics of school staff by Eastnend (1950) has contributed to what fundamental factors are functional and related to the production of high quality of educational programmes. This work has been confirmed by Boyer's (1954) work.

The studies of Bickert (1968) are about
Organisational values and characteristics of classroom teachers in a school system. The innovative school systems showed a relatively high degree of satisfaction with instructional programmes in their school. But the above programme appeared relatively unsatisfied in non-innovative schools.

According to Glines (1968), the strategy for change is simple, if the school administration encourages the innovative teachers to innovate. If it is adopted, programme teachers find their satisfaction derived from using more effective ways of teaching.

As the teachers are the ultimate users of innovations, researchers involve them to a high degree. Leverne (1963) made his research on the relationship between organisational climate, age of the staff, perception of the teachers and administrators at the most innovative and least innovative schools.

The study of Butts and Rour's (1968) on teachers change shows that a teacher Education Programme can be expected to produce in the teacher, the greatest change in perception of the Innovation. This study also includes the dimension of the teachers previous experience which are significantly related and linked to the change in the teachers perception of a curriculum Innovation.
It also explains that a competent teacher in science can effect change in the teachers Practice of a Curriculum Innovation.

A study by Rogers and others (1966) shows that age, faculty cohesiveness, feeling of security, knowledge of innovation and years of education are positively related to the adoption of innovations.

In allowing teachers to attend out of town educational meetings, workshops, conferences they are exposed to new ideas. Rogers (1965) suggested that an individual teacher influences the innovativeness of the school system.

Mortimore (1968) found very low correlation, mostly because the structural effects were almost ignored in an analysis of the diffusion of innovations to teachers in their Government Secondary Schools. In studying innovations, Bhola's (1965) emphasized the need to recognize physical, social and intellectual environments. Griffith (1964) and Pauwgrim (1966) conclude that the major stimuli for educational innovations and change come from external sources. Hilfinkers (1969) advocated the need for a self-renewing procedure in Education.

2.41 FOREIGN STUDIES ON DISSONANCE:

There are some areas of cognition where existence of major dissonance is customary. This may occur when
two or more major established beliefs or values all relevant to the area of cognition in question, are inconsistent.

Myrdal (1941) in the appendix to his classic book, states this quite well in connection with the attitudes and behaviour toward Negroes.

Osgood and Tannenbaum (1955) published a paper in which they also formulated and documented a similar idea with respect to changes in opinions and attitudes. In discussing the 'Principle of Congruity' as they call it, they state: "Changes in evaluation are always in the direction of increased congruity with the existing frame of reference (p.43)." The particular kind of "Incongruity" or cognitive dissonance with which they deal in their study is produced by the knowledge that a person or other source of information which a subject regards positively (or negatively) supports an opinion which the subject regards negatively (or positively).

Since one manifestation of the pressure to reduce post-decision dissonance is the seeking of information which the person expects will supply cognition consonant with the action taken, leadership of advertising is one possible source of data. To test this implication of the theory of dissonance, Ehrlich, Guttman, Schonbach
and Mills (1913) designed and conducted a study which involved interviewing purchasers of new automobiles concerning their reading of automobile advertising in the period immediately subsequent to the purchase.

In the experiment which was conducted, the actual measure employed was the subjects rating of how confident he was, that his decision was correct one. The assumption was that greater the dissonance the greater the number of cognitive elements to favourable characteristics of the unchosen alternative, the lower would be the confidence expressed by the subject. If this is true, one could expect then, a reduction in dissonance to be reflected by an increase in confidence in the decision. This suggestion for the experiment was made to Festinger (1957) by Dr. Francis W. Irwin. The data for the experiment was collected by Miss. Danuta Ehrlich and Mr. Judson Mills (1957).

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 rejected alternatives is increased. An experiment was designed and conducted by Brehm (7) to test the theory using this type of measurement. The objective of this experiment was simple, namely, to give person a choice between two objects and to measure change
in attractiveness of the objects from before or after the decision was made.

To demonstrate that increase in attractiveness of the chosen alternative comes about solely as an effect of ownership. Irwin and Gebhard (28), for example, conducted a series of experiments in which a person was shown two objects, was arbitrarily given one to keep as his own, and was told the other object was for someone else.

If for the person the decision made is to be reversed, then this would be expected to be a very difficult thing for subjects to do, even though the initial decision may be close one. A study reported by Martin (38) is pertinent to this question.

A number of studies have been reported in the literature in which lectures or individual instruction are compared with group decision in terms of their effectiveness in producing some change in behaviour. These studies are summarized by Lewin (36). They generally show that after a group decision there is more change of behaviour than after a persuasive lecture.

For example, dissonance Theory would imply
that the same type of effect would occur whether the
decision was made publicly in a group or by an isolated
individual, whether it was made following a discussion or
following a lecture.

A study of Bennett (4), however, make an
attempt to separate these various factors and to examine
their separate effects.

One of the implications of the theory of
dissonance is that past-compliance leads to eventual
private acceptance. Bettelheim (5), for example, reports
that some of the internees in German concentration camps,
after having been forced to behave in accordance with the
opinions and values of the guards, eventually came to
accept those opinions and values. But this investigation
according to Festinger (1957) is derived from casual or
incidental observation and is not satisfactory. But
data which fits all requirements and conditions for
demonstrating the above are available from the experiments
conducted jointly by Burdick (9) and Mc Bride (39).

The variety of situations in which past
compliance with resulting dissonance may be elicited are
shown by the studies conducted in order to determine
whether or not inducing a person to speak or argue overtly
in favour of some position would, in and of itself, contribute
to changing this person's private opinion in the direction of what he had publicly stated. These studies were reported by King and Janis (31).

A study that was based on the relation between the amount of dissonance that exists after forced compliance and the magnitude of the promised reward or threatened punishment that elicited the compliant behaviour was reported by Kelman (30).

There are several areas of opinion where it is very difficult to change people but there are instances where people's attitude and opinions do change. This change comes about only after overt behaviour that creates strong dissonance with the existing ideology has been elicited. Deutsch and Collins (12) support this suggestion in a study of changes in attitudes toward Negroes which occurred during residence in an integrated housing project.

Concerning active seeking out of relevant information on the part of persons who are faced with the necessity of action in the future, studies were conducted by the War Office information in Jacksonville, Florida (57).

In the presence of dissonance, active seeking out of information would produce new cognition consonant
with the existing cognitions and the avoidance of information that would add to the dissonance. The study reported by Lazarsfeld (33), concerns the listening audience of a series of educational programs and also study by Ehrlich et.al., (13) concerning voluntary seeking out of information in an attempt to reduce dissonance.

Reactions of persons when they are forcebly exposed to information which if cognized would produce or increase dissonance have been studied by Hastorf and Cantril (24). Relevant data are also available from a survey conducted by the Minnesota Poll in February (1954).

Involuntary exposure to information sometimes is concerned with forgetting the dissonance producing information. But exposure to information must be brief and there must be no reminders to this information. Wallen (52) conducted an experiment which shows this effect very clearly.

Danuta Ehrlich (46) and Peter Schonbach, conducted a laboratory experiment specifically to test the whole range of the relationship between dissonance and exposure to information.
Back (2) has shown experimentally that both the tendency to change one's own opinion and the degree to which one tries to influence others increase as the attraction of the members to the group increases.

Schachter (46) reported an experiment which was primarily concerned with reduction of dissonance by means of derogating those who voiced disagreement.

There are also data from experimental work which show that the larger the number of existing cognitive elements which are consonant with an opinion, the less is the magnitude of total dissonance introduced by the knowledge that some one else disagrees. Hochbaum (26), for example, performed an experiment in which half of the subjects in his groups were given prior evidence that their opinions on certain kinds of issues tended to be valid.

Experiments reported by Festinger and Thibaut (20) and by Gerard (23) both indicate that the magnitude of dissonance and the manifestations of the pressure to reduce the dissonance increase as the extremity of the disagreement increases.

The study of influence processes leads to reduction of dissonance whereby over a period of time, opinion change
which reduces the dissonance has taken place. If a person had two opinions which were dissonant with one another, one of these opinion will change and thus reduce the dissonance. Lipset et al. (37) present opinion change data for a sample of 266 persons who were interviewed twice (August and October) during the presidential election campaign of 1940. Both times the respondents were asked questions to ascertain whether they considered themselves Democrats or Republicans and whether they were for or against Willkie.

Another example of the same type of opinion change may be taken from a study reported by Blau (6). This study was concerned with opinion changes among a sample of 944 Cornell University students who were interviewed in the spring of 1950 and again in the spring of 1952.

However one would want to compare data on opinion change for persons whose opinions initially were dissonant with data for persons whose initial opinions were consonant, under circumstances where all persons had been exposed to exactly the same influence attempts from others. Under such controlled circumstances the interpretation of the results would be unequivocal. There is, of course, little possibility of this kind of precise
control in field studies such as those we have been discussing. A laboratory experiment conducted by Mc Guire does precisely fulfill these conditions. In this experiment 92 college students participated in two sessions spaced one week apart.

The existence of dissonance should also lead to seeking social support and so one should be able to detect some effects on the communication process and dissonance reduction does occur through the attainment of social support.

Some pertinent data are found in a study reported by Baxter (3) in which a number of persons were interviewed periodically during the election campaign of 1948.

Data from controlled laboratory investigation was reported by Festinger, Gerard, Hymovitah, Kellay and Raven (18).

Regarding selectivity of social communication which arises by the virtue of existence of dissonance has been studied by Brodbeck (8) who conducted an experiment which was specifically designed to test this derivation.

Murray (40) conducted a small experiment showing that if a person has a strong reaction of fear which
persists, the cognition corresponding to this reaction would be dissonant with the cognition that there is nothing to be afraid of.

Natural events which occur produce fear reaction in people—example—disasters, earthquakes. Mass media may perform an important function in reducing dissonance. The study about earthquakes is reported by Prasad (44) who systematically recorded the rumors which were widely current immediately following an especially severe quake in the province of Bihar, India, on January 15, 1934. Prasad however presented no data on rumors which circulated inside the area of destruction following the earthquake. Another study reported by Sinha (49) reported a careful collection of rumors following a disaster in Darjeeling. There was, however one important difference between the study reported by Prasad and the one reported by Sinha. While rumors following the earthquake were collected among person outside the area of destruction, the rumors which Sinha reported were collected from persons in Darjeeling who actually were in the area and witnessed the destruction. Since for these people there would have been no dissonance (when they saw and knew was quite consonant with being afraid), one would not expect "fear-justifying" rumors to have arisen and spread among them.
Many other studies of rumors report data which are consistent with both the theory of dissonance and with common sense. For example, Sady (45) reported on rumors which circulated in one of the Japanese relocation camps during World War II. It was clear that the Japanese, who were arbitrarily moved to these relocation camps, saw this as an act of hostility directed towards them by the United States.

Further experiments were done by Schachter and Burdick (47) in this connection.

When clear and unequivocally disconfirming evidence impinges on a person, the cognition corresponding to this knowledge is dissonant with the belief he holds. When such a state of affairs exists, the most usual and ordinary way of eliminating the dissonance is to discard the belief rather than to attempt to deny the evidence of one's own senses.

The above was illustrated specifically by a report from Sady (45) when during World War II, Japanese in the United States requested that they may be repatriated to Japan at the end of the war in the belief that the Japanese would win the war and the dissonance thereof when they did not win the war. To reduce the dissonance for
these people, by supporting one another for a considerable time were able to deny the validity of evidence contrary to a belief they needed to maintain.

**2.42 LEADERSHIP BEHAVIOUR - Foreign Studies**

Sargent (1967) in his study has divided principals into two groups (1) hindering principals and (2) facilitating principals. According to him "a school where teachers perceive the principal as facilitating rather than hindering their work, is likely to have a principal who is outgoing, warm-hearted, kindly and ready to co-operate. Conversely the schools where the Principals are hindering their work, are likely to have principals who are typically reserved, detached, critically precise cool and aloof.

Hodges (1956) Qconnor (1958) Beckman (1960) and Ross (1960) concluded that quality of administration is a powerful determinant of staff morale. Bernestein's (1959) stated that there is a strong relationship between teachers' morale and administration of school board.

Martin Silverman (1957) pointed out statistically that the principals Personality and human relations had more effect on teacher morale than all other characteristics combined.
Blocker and Richardson (1963) stated that the administrator was the key figure, whether teachers were satisfied or dissatisfied depended greatly on the quality of the administrative relationships in which they were involved and on the quality of the leadership they were given within this structure. Henry A. Cooks (1965) studied the nature of the supervisor staff-relationship with respect to staff Morale.

Anthony Kochenashi's (1973) study revealed a positive relationship between leadership behaviour and staff morale. This relationship was particularly strong and significant when looking at the "consideration dimension" of leadership behaviour. The relationship was less strong for the "Initiating structure" dimension of leadership behaviour. There also appeared to be a positive relationship between leadership behaviour and staff effort, but the relationship was less effective and did not prove to be statistically significant within the parameters of the study.

Thomas Vapier (1958) reported that higher teacher morale is associated with the administrator's, understanding and appreciation of the teacher. Davis Durfee Power (1973) in their study on "The relationship between faculty morale and perceived leader Behaviour found (1) faculty and chairman did not agree on perceived
leader behaviour of the Chairman (2) High scores on leader behaviour correlated highly with morale (3) The difference between faculty Perceptions of actual and ideal chairman leader behaviour correlated negatively with morale (4) faculty agreed with Chairman and directors concerning their respective ideal leadership Behaviour.

Becker (1953) studied the relationship of teacher and leadership behaviour in 60 Chicago teachers and found that the Principal was expected to support and protect the teacher.

As seen above many researches indicate that group members prefer a leader who shows "Consideration" for them. Pely (1951) said that this was so only in small work groups of ten or less. In large groups he found employees were less satisfied with such a supervisor and revealed a preference for the supervisor who identified himself more closely with the higher management.

The major findings of Duffey's (1973) revealed that there were no significant difference between high average and low average innovative schools with respect to leader behaviour of Principals. His theory also revealed that there was no significant relationship between the criterion variable of innovation, and the
predictor variables of leadership behaviour.

Claypool and Ray Celiffored (1973) submitted his thesis on "A study of Organizational climate, Leadership behaviour and their Relationships." They stated that there was a difference at .01 level of significance between behaviour dimensions of Initiating and consideration in the school administration.

Dempsey C.N. (1973) in his dissertation "Patterns of Effective and Ineffective Behaviour of Elementary School Principals as perceived by a selected group of class-room teachers in Virginia, noted important points regards the results of effective behaviour that (1) The instructional Programme improved. (2) Teacher morale improved (3) Teachers believe that they were more secure than formerly and (4) Students morale improved. The second important result given by him was with ineffective behaviour such as (1) low teacher morale (2) Poor discipline in the school continued (3) Instructional effectiveness decreased (4) teachers resented the Principal.

Guest. R.M. (1962) in his theory "Organisational change, the effect of successful Leadership" points out that an Educational Administrator who wishes to provide for productive change needs to promote an open climate.
Halpin A.W. (1955) in his theory "The Leader Behaviour and Leader Ideology of Educational Administrators and Air Craft commanders, reported that the educational administrators tended to show greater consideration and less of initiation of structure than commanders. This is due to differential settings in the two different institutions. Halpin A.W. (1956) also pointed out in his theory "The Leadership Behaviour of school superintendents" that the effective leader is one who scores high on both initiating structure and consideration.

Mackenzie and Corey (1954) in their essay "Instructional Leadership", Bureau of Publications, Teachers college Columbia University, points out that one of the functions of the leader is to develop a favourable climate for individual and group effort.

David Durfee (1973) in his theory "The Relationship between faculty morale and perceived Leader Behaviour of Department chairman at Florida Metropolitan Community Colleges reported that there was a high correlation in relationships involving morale and consideration than in relationship between initiating structure and morale.

Spott James V. (1964) in his study on variables regarding Initiating and consideration, Dimensions of Administrative Behaviour" revealed that (1) Two groups of
observers were in agreement on the consideration dimension (2) Two groups were not in agreement on the initiating structure dimension.

Wiggins T.W.S. (1972) research was on "A comparative study of Principals Behaviour and school climate." In this theory a significant relationship was revealed between the Principals Interpersonal Orientation and the school climate which remained stable for a period of eight months.

2.43 ORGANISATIONAL CLIMATE - FOREIGN STUDIES:

A number of studies relating to Organisational climate have been related here, since they are important to administrators who make decisions about factors relating to organisational climate.

Morris (1964) reported that significant differences existed between open and closed schools. Sargent (1967) reported that the teachers of schools having an open climate rated high on teacher satisfaction as compared to those schools with the closed climate.

Hamlin (1967) reported that teachers in open climate schools are found to be more satisfied and have a sense of job satisfaction. Hingland (1968) confirmed
that teacher in open climate schools tended to exhibit higher job satisfaction than teachers in closed climate.

Braden (1965) observed that the teachers in the more open climate schools held a more positive attitude towards student and the same was true in the case of Principals.

Halpin and Croft (1963) observed that teachers in Elementary schools with open climate were enjoying a very high rate of job satisfaction.

Cornell (1957) in dealing with the social Organisation of the school suggested that the feeling of the teachers towards the Organisation is perhaps more important than is found in the magnitude of their decision-making activities in it. Sharma (1972) concluded that school climate was found to be positively related to teachers satisfaction.

Arthur Clarke Smith (1973) studied "the Relationship of school Organisational climate and student morale in selected Schools". He concluded that there was a predictive relationship between school climate subscores and student morale scores.

Rogger Paul Clayton (1973) published a theory called
"The Effect of Organisational climate, on morale of students in selected Public Junior Schools" in Mississippi. In this theory they observed a significant difference in the school morale of Junior High School students in the open and closed Organisational climates. Students in open climate schools appeared to have a significantly higher level of school Morale than the students in closed climate schools. Roger found that there was a significant difference between the mean scores of students participation of co-curricular activities in open and closed Organisational climate schools on every subtest and composite score of school morale.

Worthy (1950) held that Organisational structures are an important variable in morale.

Collins (1965) seems to be satisfied in open rather than closed climate schools. Teachers were more satisfied and more happy in open rather than in closed climate schools.

Richard Andrulis (1980) published that out of 80 items, 74 showed significant correlation between teacher morale, P.T.O. Scores and organisational climate Index scores. He has also reported more aggressive and more Independent teachers who were less structured in their activities appear to be less satisfied with factors constituting to the concept of school morale.
Pugliese Raymond Walter (1975) feels that dissatisfaction among teachers varied according to Organisational affiliation, Teaching level, sex, age experience, Degree held, salary and future teaching plan.

Murphy, Martin, (1974) established in his study that the morale of teachers is affected by school administration. According to him school administration is related to the morale of teachers. Arling (1974) found that the greater the social involvement, the higher the morale irrespective of age. Those who had social contact could visit and participate in more daily activities and had higher morale. The poorest and most incapacitated of the widows had lower morale because they had less contact with the family and neighbours and fewer daily activities.

Percullo, Louis Peter (1973) in their studies "A study of the relationship between school climate and teacher morale" found that the closed climate teachers have significantly lower morale than open climate school teachers. They also stated that high dogmatic teachers have significantly lower morale than low dogmatic teachers.

Tripaks (1970) found that open climate schools have teachers with high job satisfaction and that closed
climate teachers have less job satisfaction.

In most of the studies we can clearly see that teachers in schools having an open climate rated high on teacher's satisfaction as well as school effectiveness, as compared to those schools with the closed climate.

Hodgera's (1973) study was to ascertain whether there was a significant difference between school morale of junior high school students, in open and closed Organisational climate. The analysis of data indicated a significant difference in the school morale of junior high school students in open and closed organisational climates. Students in the open climate schools appeared to have a significantly high school morale than the students in closed climate.

Pillai's (1974) study pointed out the relation between organisational climate and innovative ability of schools. The study was undertaken on a sample of 190 Secondary Schools of Tamil Nadu with about 2200 teachers. The schools were drawn both from urban as well as rural areas managed both by Government and private bodies, and included boys girls and also co-educational schools. The different climate types, did not differ significantly in terms of their innovative ability.
This schedule was developed to show types of temperament. The 140 items covering the seven areas are printed in the booklet. The reliability for the seven areas of the schedule have been computed by split half method for four groups viz. men, women, high school boys and high school girls. The odd-even correlations were computed and then reliabilities were estimated by the specimen Brown correction for double length. This schedule is used and reliabilities were calculated of men and women seeking counselling and employment through the University of Chicago.

The validity of the Thrustone temperament schedule has also been studied by using effectiveness of job performance as a criterion. The subjects in various studies were teachers, officers, workers, retail stone sales employees, and sales supervisors. The procedure in general was to compare schedule scores of groups of employees dated "high" (or) "good" in performance with scores of employees related 'low' (or) 'poor' and to determine the significance of the difference of the two groups.

Ryans studied Thurstone Temperament schedule scores in relation to teacher performance. The subjects were 275, third and fourth grade teachers. Three or four
trained observers, rated teachers independently on the following criteria

1) Pupil participation, originality, adaptability and tolerance of the teacher.

2) Teacher's "business like" attitude controlling pupil quality.

3) Teachers qualities of human understanding, calmness and consistence

4) Teachers sociability with reference to eight to ten year old children. Active stable, and reflective Traits failed to discriminate high and low groups on the criteria, vigorous Trait discriminated high and low groups significantly, on first criteria.

To determine the validity of the temperament schedule in predicting success of sales supervisors, 282 supervisors were rated by their supervisions. The overall rating of general job effectiveness included a consideration of the supervision.

STUDIES ON TEMPERAMENT TRAIT

Ryan (1978) studied the differences in the personal characteristics of the teachers of elementary and secondary who were consistently assessed high and low on the three patterns of class-room behaviour.
Davines (1975) correlated teacher's personality traits with their class-room behaviour.

Quraishi (1973) conducted a research in which he tried to relate teacher behaviour in terms of proportion of indirect talk to direct talk measured by Flanders technique with Active, Vigorous, Impulsive, Dominant, Stable, Sociable and Reflective traits of personality measured by Thrustone Temperament, Schedule. The data was obtained from a sample of 40 primary school teachers. He did not find any significant relation between i/D ratio i.e. indirect talk and direct talk and personality traits.

Morgan (1965) studied the relationship between personality and teacher behaviour. The purpose of the study was to determine if selected personality traits and creativity factors correlate significantly with certain categorized behaviours occurring in class-rooms of secondary schools.

2.50 SOME PERTINENT FINDINGS:

Rao's (1967) study revealed that the academic and professional qualifications of the Headmasters and teachers influence the diffusion process. Buch (1972) concluded that school with more trained qualified cosmopolitan staff are more innovative. We can find innovations
where there are better qualified and trained teachers. In the present study professional qualification of teachers and leadership behaviour of principals are taken into account to locate the dissonance state.

Bhole (1969) pointed out that cosmopoliteness and age of the teachers are significantly related to acceptance of innovation. She concluded that there is no relationship between the adoption of innovation by the headmaster and that of the teachers of the school. Bhole from her analysis concluded that innovative acceptance is an institutional factor influenced more by the personality of the headmasters than the teachers.

More experienced individuals are productive of more change. A study (1972) from Sardar Patel University revealed that the headmasters leadership style of the school and value system of the institution influenced the diffusion process.

Bhogle (1969) has reported that personality of the headmaster and the organisational climate characteristics of the school are found to play a major role in the acceptance and adoption of innovation, even more than the personality factors of the adopter themselves. The above findings add a very special dimension to the study of innovation dissonance in Secondary Schools.
Buch and Bennel are found to agree in their findings that the quality of "Thrust" in the principal does not contribute to the innovation adoption traits of the teachers. The component 'consideration' played an important role in adopting innovations.

Pratiba (1969) pointed out that

1) Dynamic leadership qualities of the head
2) controlled school climate leading to staff disengagement and
3) Older age of faculty members were found to be less for the adoption of innovation.

Rai's (1972) findings about the predictors of the diffusion process are (1) ascribed opinion-leadership and (2) experience of the teachers. Buch (1973) found that the age of the teachers and experience of teachers played a significant role for adopting an innovation in a school. Bhagia finds that the adoption and diffusion of an innovation in schools are very much related to the headmaster's perception of the utility and the intrinsic and situational characteristics of the innovation. The above findings add a very special dimension to the study of innovation dissonance in Secondary Schools.

Doctor (1974) indentified the headmaster's role in adopting the innovation. Mukhopadyaya's (1975) findings
show that the headmaster's characteristics like change proneness, teacher encouragement, initiative and organisational climate played significant role in adopting innovation.

Panchal (1977) finds the following significant relationship

1) More experienced teacher-educators perceive the importance of 'teaching resources' at a higher attitude.

2) teacher's Professional qualification shows significant concern with 'teaching-learning process'

3) Mobility shows significant concern with 'teaching resources'

4) Inservice education shows significant concern with 'teaching learning process' and community relationship

5) Reading habits are related with 'complexity and 'compatibility'.

6) Professional job satisfaction is highly related with 'traditionalism'.

Purushottaman (1979) pointed out that the headmaster plays both the roles of the change agent and opinion-leader. The leadership behaviour scores are high in innovative schools. As far as the organizational climate
is concerned, only the 'high' innovative schools show a clear tendency towards openness. The rest of the schools among the overage, low and non-innovative schools show a tendency towards 'closedness'.

From the review done in the foregoing pages, it is very clear that the efforts of most of the research workers in India and abroad are connected more on innovations but so far no study has been attempted to locate the dissonance. Some major findings of the above reviewed researches are:

1) The researches in the field of innovations and change in the field of education are much to certain antecedents, specifically the recommendations of Mudaliar Commission (1952-53) and the Kothari Education Commission (1964-66) followed by the innovative activities done by NCERT, CASE and state Institutes of Education and State Council of Educational Research and Training.

2) Researchers have tried to identify the roots of innovations with seminars, workshops orientation courses, organised by various agencies.

3) Researchers have also found out that leadership behaviour style or pattern of the school principal, organisational climate, and temperament of teachers are powerful forces
responsible for the growth (or) descent of innovations.

4) Most of the researchers are related to institutions or the forces working in the institutions either accelerating innovations (or) crushing them but very few researches are done on teachers as the users of innovations.

5) Cosmopoliteness and age of the teachers are significantly related to acceptance of innovation (Bhole 1969). Teachers experience and his satisfaction toward profession are related to innovativeness in the positive sense.

6) Bhagia's (1973) findings lays much stress on the adoption of an innovation in schools which are very much related to the headmaster's perception of innovation.

7) Doctor (1974) found that the factors causing change proneness is the headmaster's key role in innovations.

8) Organisational climate i.e. openness of the climate and higher staff morale are significantly related to school innovativeness.

9) Agarval (1974) study contains fifteen variables including age, educational qualification, professional training, mobility and sex. These variables appear very much for adopting the innovation.
10) Quraishi (1974) pointed out that direct and indirect teacher's sociable trait was significantly related to student initiation.

These above research findings clearly show that Leadership behaviour, Organizational climate and Temperament of teachers are responsible for adopting (or) rejecting innovation. They are also responsible for innovation dissonance.

Review of related literature, Indian researches as well as foreign studies on innovations, leadership behaviour, Organization, climate and temperament of the teachers, and some pertinent findings have been reported in third chapter. These findings have been very useful to form the basis for the entire thinking at a conceptual level for this investigation.

In India, between the year 1974 and 1976 more researches were undertaken in the area of organizational climate. Most of them were pursued at the centre for advanced study in education attached to the University of Baroda. In the year 1975 alone there were four doctoral researches relating to the climate of schools. They were done by Darji, Ivy Franklin, Pandya and Neela Shelat. In 1976 three more studies by Pengnu and Choksi and Tikmani were added to the list.
The studies on climate of schools have contributed to the development of a viable organisational climates in educational institutions. The threats posed by existence of such dimensions in the staff characteristics as disengagement, aloofness, hindrance and too much of production-emphasis are found to have been realised by the concerned people who are at the top of the administrative affairs of institutions.

Some of the recent studies done in foreign countries by Faber, Roosa and Watkins (1969) and Esporite (1971) have contributed some significant findings such as: (1) negative correlation between the age of the school principal with certain components of organisational climate of schools (2) The components that showed such a negative correlation are consideration, production emphasis and hindrance (3) one of the studies, that of Esporite, did not find the principal's age as an effective factors in shaping the organisational climate (4) No significant relationship has been found between the experience of the principal and climate in a few studies while a few other studies have found significant relationship between them.

2.60 CONCLUSION:

Bhogle (1969) concluded that innovative acceptance is an institutional factor influenced more by the personality
of the Headmasters and Principals than the teachers. 
Rai (1972) found that organisational climate, ascribed 
opinion leadership and role satisfaction are highly 
correlated with internalisation process of innovation. 
Buch and Such (1973) in their study noted that the 
experimental attitude of headmaster and the authority 
dictation are the major promoters of innovations. 
Pillai (1973) explained the relationship between the 
organisational climate and the innovativeness of the 
school by using CCDQ. Darji (1975) found that openness 
of climate facilitates the school to adopt new practices 
in larger numbers and in shorter time. His investigation 
covered 100 randomly selected high schools of Panchmahal 
district of Gujarat. He used LBDQ and CCDQ to measure 
the leadership behaviour and organisational climate of 
the individual schools. Purushottam (1979) used CCDQ and 
LBDQ and he pointed out that the headmaster plays both 
the roles of the change agent and opinion leader. He 
also added that only high innovative schools show a clear 
tendency towards openness.

From the above studies it is clear that the 
Institutional variables and personal variables of teachers 
are responsible for adoption of innovation. The same 
factors can be used to locate the dissonant state of the 
teachers.


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Human behaviour change is motivated in part by a state of internal disequilibrium or dissonance, an uncomfortable state of mind that the individual seeks to reduce or eliminate. When an individual feels dissonant, he will ordinarily be motivated to reduce this condition by changing his knowledge, attitudes or action.

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