

REVIEW OF RELATED LITERATURE

2.1	INTRODUCTION	71
2.2	IMPORTANCE OF REVIEW OF PREVIOUS RESEARCHES	72
2.3	FOREIGN STUDIES	74
2.4	INDIAN BACKGROUND AND STUDIES	117
2.5	IMPORTANT CONCLUSIONS	169
2.6	RELEVANCE TO THE PRESENT RESEARCH	172
2.7	PECULIARITIES OF PRESENT RESEARCH	174
2.8	CONCLUSION	175

CHAPTER - II

REVIEW OF RELATED LITERATURE

2.1 Introduction

The previous Chapter dealt with the introductory aspect of this research. This chapter covers a review of the relevant literature and researches dealing with the matter under study viz. the innovative proneness and its correlates of the selected secondary school teachers. The correlates under consideration are the organizational climate of the school, leadership behaviour of the Principals, and the job satisfaction of the teachers.

The review focuses mainly on what has already been achieved in the field and on what lines future efforts should be concentrated. Education as a social system has been subjected to constant innovations and change. It is only within recent decades, however, that the anatomy of the process has been studied in a systematic way.

Innovations are ultimately intended to benefit people who are organized into systems. Innovations also benefit systems directly as well as through people. The school system also gets the benefit in similar ways. Innovations may not however provide significant benefit in each case. Improvements in the way a system operates therefore depend upon serious considerations for deciding

upon any innovation and in determining what constitutes an improvement for themselves. This necessitates the study of school system in relation to other factors.

From the heap of researches that have been undertaken in the field of innovation in education in foreign countries as well as in India, the investigator has made an effort to review only the selected relevant studies which throw light on the problem of present investigation. The main focus of the study is on finding out the relationship of various components of innovative proneness with the personal and other variables of the selected teachers.

2.2 Importance of Review of Previous Researches

The necessity and importance of the review of previous researches and literature related to the current study has been nicely summarised by Patel and Lulla(1964). It indicates what has already been studied by others to date having a bearing upon the problem under investigation. It also includes review of tools and techniques successfully used in the past and which the investigator intends to use in his/her research work. All these form a necessary background for the work and serve as a test of required knowledge with which the investigator must be acquainted.

Karlinger (1964) also gives two main reasons for discussing the general and research literature related to the current research problem. Firstly, being the most

important it explains and clarifies the theoretical rationale of the problem. Secondly, it informs the reader about what aspect of the problem has not been researched so far. Behind both these reasons lie ~~the~~ basic purpose of locating the present research in the existing body of research on the subject and to point out what it contributes to the subject.

According to Good and Scates (1954), the review of the past studies gives the history, background and the link of the researches done in the area under study. The reader who is a stranger gets the global picture of the background and the rationale of the problem under investigation. The review also provides suggestions for further research.

The present investigator has kept all these points in view while reviewing the previous studies. The researches done by B.S.R. Anjanuyulu (1968), M.S.Patel (1979), and A.H.Trivedi (1981) in particular have been found to be quite helpful in planning and conducting the present study. While presenting the review the investigator has elaborated only those works which were found to have a direct bearing on the problem under investigation and other studies have been covered in brief to save the thesis from becoming unduly bulky. For better presentation the literature under review has been divided into four sections after which important conclusions have been drawn and relevance to the present research established.

2.3 Foreign Studies

Linton (1936) was the first to find that the characteristics of an innovation are related to its rate of adoption. Paul Mort is known as the Pioneer and guiding force in the field of educational innovation diffusion studies. Mort and Cornell (1938) published 200 studies in the adaptability of Public school system and made valuable contribution in defining the concept of adaptability and other associated terms in identifying the associated factors. They also found that nearly 100 years are needed for complete diffusion of an innovative practice - first 50 to solve and next 50 to accept it. McVoy (1940) first set a model for studying innovativeness to construct an idea of progressiveness.

The correlates of innovativeness were initially analysed in most of the studies conducted between 1952 and 1961 by Caplow, Katz, Menzel, Coleman et.al. Deasy, Hochbaum and Yeracaris. During the period the emphasis of research was on adoption of innovation and change process. Mort et al (1957) found that the process of innovation in education follows a predictable pattern. Donald Ross (1958) found that the most closely related factor to innovation is the economic resource and the attitude and expectations pressurise the school to innovate or adopt to change conditions. Mackenzie (1954)

found that one of the functions of leader is to develop a favourable climate for individual and group effort. Williams (1957 and 1959) studied the characteristics of progressive firms in relation to their innovativeness.

Halpin (1955) found that the educational administrators showed greater consideration and less initiation of structure than the commanders due to the differential setting of the two institutions.

Fielder (1957) developed a leadership contingency model with three major situational variables to determine whether a given situation is favourable or unfavourable to a leader. He defined the favourable situation as the degree to which the situation enables the leader to exert his influence over his group.

Peace and Stern (1958) found that the climate of an educational organization consists of personality characteristics, values (needs) of its members; and the organizational pressures of students, administration and faculty. Nilson (1960) identified four types of climate found in an organization.

Campbell (1959), Wilkening et al (1960), Beal and Rogers (1957A) and Lenthold (1960), found that cosmopolite sources of communication are more important at the awareness

stage and localite sources of information at the education stage.

Liphan (1960) studied individual and personal quality variables of headmasters and related them to effective leadership in school. He gave four favourably contributing factors (viz. interpersonal relationship, intelligent operation, emotional stability, and adequacy in communication), four necessary qualities (viz. purposefulness in selecting every activity, concern for achieving higher status, effective communicability, and feelings of security) and four ineffective qualities (viz. more occupation with speculation, complacency, more dependence, and highly émotional disposition).

Guest, R.M. (1962) found that open climate should be promoted for introducing productive changes.

Rogers (1962) summarised more than five hundred studies from various disciplines including education and concluded that the studies in education made only marginal contribution in the field of diffusion. He reported a study which had revealed negative correlation between dogmatism and innovativeness.

Forehans, G.A. (1963) found that the climate is a set of organizational property which may influence the behaviour of individuals in an organization. Social climate

is related to motivation, aspiration and eventuality to job proficiency.

Carlson (1964 and 1965) studied the school superintendents in relation to innovation adoption. The teachers were considered as a related factor. He found that the innovators had more professional education, had attended more professional meetings, were more professional minded, interacted more with persons, and received higher professional ratings. He also found that opinion leadership of superintendents was positively related to their innovativeness.

Rogers (1965) advocated that an individual teacher influences the innovativeness of the school system by allowing teachers to attend out-of-town educational meetings, workshops, and conferences wherever they may be.

Flaxton (1965) found that the sub-test of the organizational climate provide reasonably valid measures of improvement aspects of the school Principal's leadership.

Airsman, F. (1966) found that student teachers in an open climate school perceive the efficiency of student teaching situation more favourably than student teachers in closed climate.

Lin et al (1966) found that the horizontal communication about the innovation has significant positive relationship with the innovative behaviour of teachers.

Marion (1966) studied factors related to the innovativeness of elementary school Principals and concluded that the innovative Principals tend to be younger, more cosmopolite, more profession-oriented and more influential among their fellow Principals. He also found that the innovative Principals tend to be mentally flexible, are viewed as highly innovative by other Principals and have taken recent University courses. Such Principals usually work in schools situated in a higher socio-economic area of the community staffed by teachers who favour the adoption of new educational practices. Further, no relationship was found between the innovativeness and the education of the Principal, his dogmatism, his anxiety, his values, and the size of the school.

Walberg and Welch (1967) found that innovative Physics teachers scored higher on theoretical and aesthetic values than other male high school teachers but lower on economic, religious and political values. They also scored much higher on a Physics achievement test. They were also found to be less autonomous and heterosexual.

Sergent C (1967) found that the teachers of schools having open climate were high on teacher satisfaction as

well as school effectiveness as compared to the teachers of closed climate schools.

Bickert (1968) studied organizational values and characteristics of school system. Classroom teachers from innovative school showed a relatively high degree of satisfaction with instructional programme in their school and those in non-innovative school appeared relatively dissatisfied with many of the innovational aspects and instructional programme.

Laverne (1968) studied the relationship between Organizational climate, age of staff and years in the school, and number of professional staff, perception of teachers and administrators at the most innovative and least innovative schools. It was found that the schools involved in innovations had open climate and there were significant differences between most innovative and least innovative schools in expenditure per pupil, age of the professional staff, and years of service in the schools. Teachers required fewer number of years in the schools involved in innovative practices. The most innovative schools had the largest number of professional staff. Administrators viewed the climate as more open than did the teachers. The average age of the staff was lower in the open climate schools. The average and the number of professional staff was large in the open climate schools.

Benett (1969) worked on the relationship of Organizational climate with innovations in the schools with close supervision by the Principal who is highly directive. A large number of innovations are found in schools having autonomous climate.

Roosa (1969) studied organizational climate, leadership behaviour and their relations to the rate of adoption of educational innovations. He found no positive relationship between adoption of innovations and openness of organizational climate. He found a significant relationship between :

- (a) age of the Chief School Administrator and the consideration shown for the staff,
- (b) the length of the Chief School Administrators experience on the job and rate of adoption of educational innovations, and
- (c) the expenditure per pupil and the rate of adoption of educational innovations.

Faber, Roosa and Watkins (1969) and Espordite (1971) reached some significant findings viz. (a) negative correlation between age of the Principal and certain components of organizational climate of schools viz. consideration, production emphasis and hindrance; (b) Espordite did not find the age as an effective factor

in shaping the organizational climate; and (c) no significant relationship has been found between the experience of the Principal and climate in a few studies while a few other studies have revealed significant relationship between them.

Reynold (1970) found that the contributing factor to the adoption process is leadership behaviour of both the Principal and the teachers.

Bemberger (1970) found a significant positive relationship between the degree of openness of the organizational climate and the rate of adoption of educational innovation. The same finding was reported between the relationship of degree of open-mindedness of faculty belief and rate of adoption of educational innovation.

Hardy (1970) found that the Principals considered more effective advocates of change do not possess a significantly higher degree of executive professional leadership than the Principals considered less effective advocates of change.

Andrulis (1970) found the degree of satisfaction of teachers and the perceptions of school climate related to the installation process of an innovation.

Wallace (1970) concluded that both, teachers personality characteristics and the organizational climate play important roles in determining the eventual success of the installation of an innovative curriculum.

Radhukar (1951), Rogers (1961) and Seger and Holdaway (1966) found a positive relationship between the age of the Headmaster and his innovativeness. On the other hand, the studies of Carlson (1965), Carnic (1966), Lawrance (1967), Hinman (1967) and Anhel (1967) found a negative relationship between the same factors.

Johnson (1961) concluded that the role and status of the teacher-leader is a thing to be earned than assigned. According to him, the right balance between the effectiveness and efficiency marks a leader.

Flannagon (1968) found that where leadership behaviour was ineffective, instructional effectiveness also slided down. He concluded that alongwith other variables, effectiveness of school is interwoven with leadership behaviour of school Principals.

Friedlander and Newton (1969) found that the climate is primary determinant of job satisfaction moderated by job values of individual employees.

Castettar (1971) studied the effects of the leader behaviour on his subordinates are quick to detect the

feeling of the head about the organizational intent, and his commitment to goal achievement.

Wiggins (1972) found that the climate of school influences the behavioural characteristics of the Principals.

Barfield (1973) found a significant difference in the academic achievement of innovative and non-innovative schools. He reported that most innovative schools had open learning climate and HH pattern of leadership behaviour. A significant difference was found in the academic achievement of pupils in open and closed climate schools. He also found that the difference between the learning climate in the innovative and non-innovative schools was not significant. Also, while effectiveness of innovation is not contingent upon completely open climate, it does not encourage them and establish effective staff relationship. Further, the Principals and staff of innovative schools appear to enjoy their rewards gained from the innovative Principals.

Christian (1973) found a significant positive correlation between openness of organizational climate and the rate of introduction and utilisation of innovations.

Dempsey (1973) found out the results of effective and in-effective behaviour of the Principal on instructional

programme, teacher morale, student morale and sense of security of teachers.

Finnesey (1973) found that the mean initiating structure score increased with age, years of experience and the number of school districts a teacher had taught. Also, the male teachers were found to have higher mean initiating structure and Consideration than the female teachers.

Hale (1973) found that an increase in years of experience resulted in decrease in consideration scores and increase in Initiating Structure scores. Also, increase in the age of faculty members resulted in increase in the Initiating Structure scores.

Joseph and Duffy (1973) found that there was no significant difference between high, average and low innovative schools with respect to leader behaviour of Principals, dogmatism, and openness of organizational climate. There was no significant relationship between the criterion variables, innovation, and the predictor variables of leader behaviour, dogmatism and openness of schools climate.

Wheeler (1973) found that the leadership style of the Principal is an important, factor in the organisational perceptions of the teachers and students.

A significant correlation was found among the variables of Principal leadership style, student perception of school atmosphere and students self-reported absence frequency.

Longstereth (1973) found that the male and female Principals perceived their own leadership behaviour as being significantly different on the consideration dimension. Super-ordinate's perceptions of Principals' leader behaviour were not affected by the sex of the Principal. Male subordinates perceived male and female Principals as exercising a high degree of production emphasis.

Presten (1973) used the tools of LBDQ and learning climate Inventory (LCI) on 225 teachers of 10 schools of open space and traditional schools and found that there was no significant difference in the learning climates of the open space and traditional schools and the teachers of the traditional schools perceived their Principals to be more effective.

Benedelto (1977) investigated self-adoption of the innovation and its relation with other six external variables viz. supportiveness of the Principal; selected characteristics of intern adopters; percentage of intern adopters; interpersonal contact concerning interning for

learning; budgetary allowance for learning materials; and tangible incentives. It was found that these variables failed to boost up the self-adoption of innovation.

Steward (1977) examined the applicability of the perceived attributes of adopted educational innovations in other disciplines. The attributes were : relative advantage, compatibility, complexity, triability, and observability of the innovations. He found that only 'Complexity' applied to educational innovations and other four variables did not apply. Also, several sub-attributes are important for adoption but have opposite effects.

Brown (1977) studied the source of pressure for innovations in the Public Schools. He found that extra-organizational pressure, mostly from parents, was related to innovations and the organizational output variables like word knowledge, self esteem and school anxiety had no relationship. This is a clear evidence of innovation dissonance, i.e. the discrepancy between an individual's attitude towards an innovation and his decision to adopt or reject it.

Nunez (1977) tried to determine the relationship between the simultaneous action of six teacher variables and teacher perception of the effect of an innovative programme and also the relationship between the individual

variables and teacher's measured perception of programme effect. Two innovative programmes were selected and a seven item questionnaire was administered to the 227 teachers of the 14 sampled schools of two types. It was found that the simultaneous action of the teacher variables was not a significant predictor of measured perception of the effect of the first innovative programme. The sex variable was however significantly correlated to the perception of this programme. No consistent relationship was found between the individual teacher variables and the total perception for each innovation. 'Subject' and 'Familiarity' were found to be significantly related to the perception of effects of the second programme.

Newell (1978) emphasizes on the scientific basis for competent administrative behaviour. Attention of researches has been drawn to the study of factors or conditions which determine the effectiveness of leadership of the school Headmasters in the field of innovation. He holds the view that the administrators need to develop an understanding of human behaviour and the requisite competence for suitable interpersonal relationship to function with responsibility in providing effective educational programme in relation to needs, to help

appreciably in strengthening the staff and exercise strong leadership for the community as well as for its representative on the Education Board. An effective leader needs to understand task as well as human dimensions and to develop necessary competence in both.

So far the researches were discussed in brief to reflect the back-ground studies undertaken in the field of educational innovation. These constitute the foundation work over which several further researches were conducted opening new vistas of knowledge. Now a detailed review of recent and closely related foreign studies is being presented.

Duffey (1973) studied the relationship between educational innovations, Principals' behaviour, faculty belief system and organisational climate in Jesuit High School in the United States of America. A 34 items inventory survey was conducted on the basis of three tools viz. L.B.D.Q., O.C.D.Q. and Rokeach's Dogmatism Scale (R.D.S.). 'Innovation' was considered as the criterion variable and leadership behaviour, dogmatism, and climate openness were taken as the predictor variables. The findings included : (a) no significant difference between high, average and low innovative schools with respect to leader behaviour of Principal and openness of the organisational climate as perceived by faculty members, and (b) no significant relationship

between the criterion variables of innovation and the predictor variables of leadership behaviour, dogmatism and openness of school climate.

Relationship of innovation with leadership behaviour and organizational climate is also under investigation in the present study. The study of Duffey thus is of importance to the investigator.

Henderson (1975) tried to ascertain whether innovations in education depend upon individuals passing through a process of adoption and upon the organisational context of education? An instrument was developed to measure adoption. The hierarchical nature of the organisational structure of education was defined and the professionalisation aspect was determined. A survey design was used to explore the problem at a macroscopic level. 1244 teachers were randomly selected from 20 Schools for this study. Two more teachers were included separately. The analysis of data included measurement on teacher mean score which in turn were averaged to obtain School and Board scores. A co-efficient of reproductibility was used to determine whether the time in the adoption instrument formed a scale. A measure of variation within Organisational units was obtained by means of variance components analysis technique and patterns of variation across levels was determined by the Friedman two-way analysis of

variance by ranks. The effect of background variables was gained through a regression and stepwise regression analysis.

Strong evidence was found to support the progress of teachers through a series of stages in the adoption process. Organisational level was also found to have an effect on adoption with greatest effect at school level. The background variable for teachers, Schools and boards were found to have little effect on adoption behaviour. Classification of innovations as Content type and Application type based on educational rather than sociological factors as against logical factors was found to be useful in a study of educational innovation. Henderson also suggested further study of background variables closely associated with the organisational structure and environment. This study connects the present research through the correlates under consideration and is considered to be relevant.

Dennis (1976) investigated the organisational climate and leader behaviour in 20 middle schools of the United States of America by using the organisational climate Index, Leader Behaviour Description Questionnaire Form XII and Education Scale VII of Kerlinger and Pedhazur. The findings indicated that individuals' attitudes towards education were not significantly related to their

perceptions of the leader behaviour of the Principal. Also, a significant relationship was found between the teachers' perceptions of the school climate and leader behaviour of the Principal.

The research of Dennis is closely related to the present investigation as both cover similar levels of education. The tools differ but the variables of organisational climate and leadership behaviour have been investigated by both studies.

Francis (1976) used O.C.D.Q. and Change Agent Questionnaire (C.A.Q.) on a sample of 126 Tennessee Public High Schools to study certain relationship among innovation adoption, organisational climate and Principal's change agent style. Seven important findings of this study were : (1) the relationship between openness of climate and total innovation was linear and significant, (2) significant relationship was found between openness of climate and each of the factors, namely staff development, curriculum and instruction evaluation and reporting, (3) the relation between change agent style and total innovation was not significant, (4) the areas under staff control with strongest relationship were instruction evaluation and reporting; individualisation; curriculum; student's affairs; and staff development, (5) the effective change agent style

9/9 and change via credibility produced a bi-model distribution with schools ranking either high or low in innovation, (6) the work change agent style with 1/1 and custodial change had schools which tended to rank high or average in innovation, (7) no significant relationship was found between openness of climate and change agent style.

Francis (1976) revealed that the climate of the school plays a significant role in case of innovations in education and the administration should try to build open climate in the schools. This aspect is very useful for the present study in which the organizational climate has been taken as a correlate.

Shipman (1976) explored the change process from the adoption diffusion approach with emphasis on the individual innovation user. Review of the research literature suggested a task relationship dimension to innovator personality which in turn might be related to the levels of use of an innovation. Task/relationship personality dimensions were measured as leadership styles using the LEAD self instrument (a self-perception measure).

Teachers of 13 Experimental career Education Schools districts in Ohio, USA were randomly chosen on the basis of geographical district, grade level, and number of years in the Career Education Programme. 297 schools were classified as dominant personality types on the basis of

measurement by lead self. Each subject was rated using the (LOU) levels of use innovation technique for its correct level of use (0-7) of the Career Education Innovation. The rating was done on four categories of use viz. performing, sharing, status reporting, and acquiring information.

No significant relationship was found between user personality and levels of use. 97 percent schools fell in the High relationship dimensions of personality types and the rest fell into low relationship dimensions types. This finding suggests a relationship between personality types of the educators involved in innovation adoption. The aspect of change and its process is related to innovative proneness and hence this study is relevant to the present research.

Marsten (1976) tried to establish a relationship between innovation and the characteristics eg. age, sex, training, level of instruction and the general innovative climate of the school. 63 Secondary school social studies teachers responded to the questionnaire which contained items relating to (a) demographic information (b) teacher perception of the innovative climate of their schools, (c) types of innovations made by teachers, and (d) the attitude of teachers towards sharing information. Marsten found that : (1) It is not possible to identify innovative teachers by sex, age, teaching experience, membership in

professional organisation, teaching level or the possession of tenure, (2) the innovative teachers tend to have more University degree, read more professional journals, attend more conferences and travel more widely than non-innovative teachers, (3) both the innovative and non-innovative teachers perceive their school climate to be mildly supportive of innovation, (4) the chief source of discouragement were the students, (5) class-room teachers were the most responsible ones to initiate change (6) the innovations originating with teachers were usually directed at the individual student facing difficulties, and (7) the innovative teachers willingly cooperate with other teachers but generally develop innovation individually.

Demyan (1976) focussed his attention on the entire school staff. The two major concerns in the study were the data displays and the order and strength of the variables set correlations. It was hypothesized that there existed other variables of potential significant relationship to attitude towards innovation.

The major variables set was derived from the value sources for the curriculum (the learner, the society and the disciplines.) It was asserted that a school staff's attitude toward innovation should follow from the intensity and order of importance placed on

these three sources. An instrument was constructed on the basis of suggested affectors of the curriculum. The role of the Principal in the innovative proneness was indicated to be that of 'Gate Keeper' and the most appropriate theory for assessing administrative behaviour was situational managerial theory.

The Educational Position Analysis Test (EPAT) was used. It was hypothesised that the set of descriptors from the instrument would be related to the attitude of a school toward innovation. A set of 10 general indicators of innovative schools was transformed into 10 sets (pairs) of educational concepts and the total 20 concepts rank individually. An innovational attitude indices set of variable was constructed. These values were used to describe the attitude toward innovation of a given school staff. A demographic set of school system, school, and administrator variables was used and correlated with the attitude toward innovation set as well.

The sample consisted of 44 schools, which had volunteered from an initially randomly chosen set of schools in Ohio, USA. Since demographic comparative data for Ohio schools were not available, a second set of 30 schools were randomly chosen and were found to be dissimilar on demographic measures from the sample set. A canonical analysis was performed on each of the major

component as well as one subset and several component subsets. All canonical correlations were found to be significant ($P < .05$) for the tested variable grouping.

The amounts of redundancy in the left hand set (demographic, value sources, and administrative) measured against the right hand set (attitude toward innovation) revealed that administrative set was most related to the attitude toward innovation and the least related to it was the demographic set. Also the value source sub-set was the most related subset variable to the school staff attitude towards innovation.

An important result of Demyan (1976) was the mapping of the attitude of a school based on the educational concept ranking of the entire school staff. This study is also important for its focus on attitude towards innovation. An Innovational Attitude Indices (IAI) set of variables was constructed. Attitude towards innovation is also a variable under study in the present research.

Clayton (1976) related the facilities available in the school to the innovative instructional practices as perceived by the Principals in Connecticut and arrived

at the following findings :-

- (1) Majority of the New elementary schools utilising the wing design were of one storey construction and were planned to house over 500 students. The physical feature most frequently designed into new schools was the provision to convert rooms or areas to various sizes. The implementation of individualised instruction and grouping of students for instructional purposes required the largest number of physical changes to school building. The addition to partitions or moveable walls were the most required structural changes to accommodate innovation instructional practices.
- (2) The left and cluster design schools were considered to be more adaptable than other designs to innovate instructional practices implemented after the school building had been occupied. The Wing design school required more physical changes than other designs to accommodate new instructional practices.
- (3) In the planning of schools the superintendent, school board and by members of the community, in rank order, made more contributions than other

people involved. The Principal and teacher contributions were considered to be less important than non-professional contributions to the planning process.

- (4) The majority of Principals were dissatisfied with the new elementary schools due to lack of flexibility in the building and changes that were perceived as necessary for implementing innovative instructional practices as well as lack of space for special functions such as special education classes.

These findings implied that while planning the new school buildings the utilisation studies of physical features should also be included and comparison studies of instructional practices relating to various school designs could indicate the design of the building best suited to present and possible future instructional practices.

Gifford (1976) developed the Attitude Towards Curriculum Survey (ATCS) and investigated the relationship between teacher attitude toward curriculum and acceptance of a programme innovation by students and teachers. Data was collected by using the QSQ Questionnaire developed at the University of Georgia. A sample of 164 teachers and 3823 students in grades

VIII to XII in a central Georgia school system which had adopted a QSQ involving numerous curriculum changes in the year 1975-76 was chosen for the study.

The results indicated : (1) the teachers had a relatively favourable attitude toward curriculum, (2) inter-relationship among the variables in the ATCS yielded all significant and positive correlations, (3) The results of a semantic differential section of the QSQ indicated that both teachers and students perceived the present school year to be active, (4) analysis of individual item responses on a contrast question Section of the QSQ indicated that both student and teachers feel that the increased course offerings were more interesting than the previous years, they were chosen with more freedom by the students, they provided more work for both students and teachers and permitted the students to accept more responsibility. All contrast question on the QSQ gave significant correlations between students and teachers, (5) There was more student-teacher contact and that teachers seemed better prepared and felt better about this year, (6) A significant negative correlation was also found in respect of the quality of teachers this year when compared to last year, (7) The relationship between teacher attitude toward curriculum and teacher acceptance of programme innovation was not found to be significant but the teacher attitude towards

leadership was found to have the greatest impact, (8) Application of Bok (1975) procedure for analysis of the variates revealed that students may perceive a programme innovation to be potent when teachers have favourable attitudes towards the operative curriculum plan, (9) The relationship between teachers and student acceptance was found to be significant but the significant contributors to the student acceptance variate were all negative.

These results suggested that students are likely to have negative reactions with respect to acceptance of a programme innovation if the teachers experienced a substantial change in the curriculum. This was a study of student as well as teachers.

Coulson (1976) studied Principals' behaviour in relation to creation of favourable climate for productive change and increased innovation within the class-room environment. This study involved three major areas viz. Principal's behaviour as perceived by teacher, the cognitive structures of Principals in relations to work, and the number of innovations taking place within a given building. The sample included 15 secondary schools in West Oregan, U.S.A. Two questionnaires used in this study were : the teacher perception of Principals' Behaviour Questionnaire (TPPBQ) prepared by the investigator and the

work motivation Inventory (WMI) published by the Telematics Inter-national which was based on Maslow's hierarchy of needs and determined the Principals' cognitive structure involving work.

The TPFHQ was divided into five parts viz. (1) Public encouragement, (2) Initiating behaviour, (3) Delegating behaviour, (4) Communicating behaviour, and (5) Diagnosing behaviour. A seven point likert type scale was used to measure the perceptions of these behaviours. In all 646 Teachers and 15 Principals responded to the Questionnaire. Teachers were asked to indicate the number of innovations they had proposed, attempted or accepted in the previous year. Data was correlated against a teacher perception score for each behaviour. Each school was placed into one of the four categories viz. (1) High teacher perception/High Innovation, (2) High teacher perception/low innovation, (3) low teacher perception/high innovation, and (4) Low teacher perception/low innovation. For each category significant differences were computed. From the WMI the Principals were given scores on the basis of decided norms and their behavioural pattern and cognitive structure conducive to class-room innovation were prepared.

The major findings of this study were; (1) all the five behaviours were significant (at .01 level) in relation to Principals of category one and four.

(2) Category one Principals were high on self-actualization need and belonging needs and low on ego status needs. (3) The belonging need scores of all the Principals was above the mean of the 900 people surveyed. (4) Majority of the Principals having low innovation scores also had low scores of public encouragement and low communication (5) No significant patterns of cognitive structures of the Principals emerged.

From these results three important conclusions were drawn. These are: (a) There are significant Principal behaviour (as perceived by the teachers) which can help create an environment conducive to classroom innovations; (b) generally speaking, low individual basic needs and low safety needs with high self-actualisation needs are the necessary cognitive structures for the innovative Principal; and (c) it seems that visibility (appearance) of the Principal could be a major factor in creating a climate for innovation in the school.

Coulson has established that certain administrative norms of behaviour are necessary on the part of Principal and certain administrative norms of behaviour are necessary on the part of Principal and certain institutional norms of behaviour on the part of teachers. The present study also aims to investigate the Principals' leadership behaviour pattern in relation to innovative proneness and hence the study of Coulson is important for the investigator.

Payne (1976) studied the relationship of selected individual and organisational variables and related them with the degree of implementation of an innovation. The instructional television was selected to be the innovation under study, and its utilisation in class room instructions in terms of frequency and hours of utilisation was considered. These variables were also analysed by placing 'Quality' utilisation conditions as a part of the total score to find out whether there would be any difference in the relationship.

The predictor variables in this study were : Progressivism-traditionalism; open-closed-mindedness; evaluation, method of adoption; and power of the superintendent, Principal and teacher. In addition, 3 empirically deduced variables were included in the study. These were : size of the school, quality of reaction and availability of set. Teachers were selected from 15 large and 15 small sampled elementary schools from Texas, U.S.A.

The findings revealed that (1) there was a significant positive relationship between the criterion variables and the predictor variable - evaluation. The 'quality' utilisation meant that when given sufficient power, the teacher would use more instructional television under higher 'quality' conditions. (2) There was no positive relationship between the size of the school and the

amount of utilisation of TV. The variables of 'quality' reception significantly related to utilisation.

Kelleher (1977) took the Principals of 33 Public School System to provide guidance for the system as they implemented a curriculum innovation. In all 78 Principals (86% male and 14% females) were studied. It was a descriptive study. A Principal Leadership Behaviour Monitoring Questionnaire (PLBMQ) was designed for use by the Principals as a self-measure. It was also used by the faculty to report their perception of the Principals leadership behaviours.

These behaviours were measured by six scales found in the Questionnaire. They were related to the success in implementation of an innovation. They were (1) Initiating structure, (2) Consideration, (3) Principal task-orientation, (4) Principal authority with participation orientation, (5) Teacher Morale, and (6) Teacher Professionalism. The first four related to the Principal leadership behaviour and the last two with the effects of Principal leadership behaviours on the teachers.

From this study interpretive material was prepared for the individual Principals to monitor their leadership behaviour and also to identify the educational climate in his school. These norms fell into two categories viz.

(a) 'Real Vs Ideal' norm. The real situation was compared with the ideal situation as perceived by the faculty. Magnitude of difference was the major consideration. The result of the study indicated that 0.40 difference is important and is the cause of concern. (b) Desirable Upper level norms for each of the six scales were established by examining grand mean score from the total sample of innovative group and upper quarter groups.

Kelleher (1977) is of significance to the investigator as the Principal's leadership behaviour and the organisational climate of the school in relation to the innovation are the common aspects of the study conducted by Kelleher and the present study.

Kurutz (1977) investigated the organisational change. The aims of this study were : to establish whether a perceived need for organisational change in clinical psychology graduate training was familiar, to determine apparent practical merits of possible changes, to prove an analysis of research results for managing organisational change and academic innovation.

The Institutional Goals Inventory (I.G.I.) was administered to a sample of 257 full-time faculty members in 35 academic departments of higher education randomly chosen throughout the country. One-way analysis

of variance was employed to test the six hypotheses based on both current and optimum goal responses. 12 hypotheses were thus tested of which 9 were not rejected. The forces found motivating these changes were identified as : (1) the faculty favouring current and optimum goals on academic freedom, democratic governance, innovation, and accountability favoured current and optimal organisation change goals. (2) The junior faculty members were in favour of optimum organisation change goals while senior faculty members were more in favour of current organisation change goals. (3) Respondents from less population region were more in favour of current and optimal organisation change goals than those from highly populated regions.

This was a unique study as it covered the awareness of organisation goals in the faculty members and their reactions and opinion about the change in these goals. Such studies help in increasing the innovativeness which is essential for a healthy organisation. This study is therefore relevant in the present research.

Bell (1977) in a case study examined various efforts for undergraduate curricular reform and innovation at an institute of higher education, of the University of Houston. It analysed the process of

change by examining various competing theories from the individual, structural, and environmental perspectives. The setting of this study was in two contexts, viz. (a) higher education curricular reform throughout the country over the past 15 years, (b) the specific evaluation and the development of the University of Houston during that time.

Five programmes provided the core of analysis. These programmes were chosen on the basis of five criteria. Written evidence and oral interviews (taped) were resorted to for this study. The 22 interviews sought to determine the importance of five primary factors viz. leadership and support from key administrators; structural and budgetary consideration; impact of the reward system; congruity with the University's overall educational mission; and environmental influences.

The findings included: (1) of all the factors which impinge upon curricular innovation, those with economic or financial implications exert the greatest influence over the activities of academic units and the behaviour of individuals within these units. This includes several dimensions. (2) The role of the top academic and administrative leadership is limited to supportive and coordinative roles rather than direct intervention. They exert three types of influences

(a) budgetary support, (b) public statements of support, and (c) the power of private persuasions. (3) The curricular innovations of the University of Houston was a decentralised operation. (4) Among the external influences, the most powerful were funds, legislative interest and student demand for certain programmes. (5) There was strong opinion for the legitimacy of each of the University programme of overall education mission as they met the diverse needs of the student-groups. (6) There was considerable agreement that innovative programme comprise an outer ring of pursuits for which the core is the traditional programme of the academic departments.

Lawlor (1977) tried to determine the relationship between eleven theoretical variables on prediction of innovation and social studies teachers' use of new curriculum materials. The variables associated with teachers acceptance of innovation and change were : Participation in planning and development; knowledge of innovation; attitude towards risk-taking; opinion leadership; disposition toward education; years of teaching experience; assigned teaching level; age and school system. These variables were compared with the three dependent variables viz. teachers' use of tricounty social studies resource units; students opinion of teachers use of these units; and supervisors'

opinion of teacher use of these units.

525 social studies teachers of the three Maryland Public School Systems were administered a questionnaire to find out their views on the theoretical variables. In addition separately questionnaire were served on some randomly selected students and appropriate social studies supervisors for their opinion on teachers' use of social studies resource units. Data analysis utilised SUMSCORE and BMDs & D Programme for finding out alpha coefficients for scale reliability and Pearson Product - Moment Correlation coefficient for other results. The test was conducted to determine significance of null hypotheses.

In this study 14 of the 33 null hypotheses were rejected at the 0.05 level of confidence indicating that the selected theoretical variables served as a predictor of teachers' use of social studies resource units. All the theoretical variables were found to be related to the dependent variable of teachers' use of resource units. Six theoretical variables were significantly related to this variable. The six variables were : Participation in planning and development; Cosmopolitaness; Confidence in leadership; Knowledge of innovation; Attitude toward risk-taking; and Opinion leadership.

Five variables viz. Participation in planning and development; Confidence in leadership; Knowledge of innovation; Disposition towards education; and Assigned

teaching level; were significantly related to the dependent variable supervisors' opinion of teachers' use of tri-county social studies resource units. Two of these variables (viz. disposition toward education and assigned teaching level) were not related to this dependent variable. A relationship between the three variables (viz. cosmopolitaness, attitude towards risk-taking, and opinion leadership) was concluded. These 3 variables were also found unrelated to the dependent variable-supervisors' opinion of teachers' use of resource units.

Three variables (viz. participation in planning and development; attitude towards risk-taking; and assigned teaching level) were significantly related to the dependent variable-students' opinion of teachers' use of resource units. This dependent variable, however, showed no relationship to 4 of 6 and 3 of 5 theoretical variables that were related to teachers' use of resource units and supervisors opinion of teachers use of resource units, respectively.

The theoretical variable 'participation in planning and development' was positively related to each of the 3 dependent variables. The theoretical variables-age, school system, and years of teaching experience

in Westchester County. The Principal and a random sample of teachers in each School completed the IP and RRO questionnaires. 95 other Principals also completed the IP Questionnaire. In addition, 15 super-intendents completed the Innovation Difficulty Rating Questionnaire (IDRQ). This study showed an association between high RRO consensus and IP. A factor analysis of the IP data revealed several very convincing factors, however, none could be associated with other high or low RRO consensus.

Principal as a leader of the school has to initiate innovation in the school and has to manifest particular type of behaviour to seek cooperation of the teachers. Thus the variables of leadership behaviour, innovative proneness and innovation dissonance seem to be inter-related. Further researches were also recommended for this purpose. The present study has included the variables of leadership behaviour of the Principal and innovative proneness for further research.

Demos' (1978) examined the difference between perceptions of teachers toward innovations and change in the Department of Defence Department schools, Europe (DODD-SEUR) which were offering traditional educational programmes and the teachers in other schools which were organising innovative educational programmes. A three part questionnaire was served to 250 teachers of the six

secondary schools to ascertain : (1) the view points of teachers regarding 45 statements about the introduction of new concepts, approaches, and techniques into schools and classrooms, (2) teachers' preferences regarding widely adopted innovations, and (3) pertinent information about the respondents themselves. Three of these schools had traditional climate and the other three an innovative climate.

The major findings of this study were :

(1) Teachers gave their strongest endorsement to (a) they must have the support of the Principal for successful adoption and implementation of innovations. (b) some specific in-service training is essential for any curricular change, (c) teachers who visit exemplary programmes in other schools will usually try new approaches in their own classroom, and (d) community view exert a strong influence upon the school curriculum. (2) Teachers disagreed most with the concepts (a) men seem to be more open than women in their thinking about adopting of educational innovations, and (b) teachers who teach the required subjects are less likely to innovate than the teachers of elective subjects. (3) Teachers gave the highest rating to innovative practices like (a) employment of para-professionals, (b) variation in use of time, (c) variable-sized grouping of students and (d) Team teaching.

The conclusions drawn were : (1) Support of the Principal encourages positive views towards innovation and change, (2) Teachers actively participating in the planning and development of the curriculum hold favourable views for adopting innovation and change, (3) Teachers of elective subjects as well as others hold similar views about the innovations and change, (4) These teachers who visit the innovative programmes hold more positive views about the introduction of innovations and change.

Yerys (1978) studied the relationship among Organisational structure, teacher belief system and teacher perception of involvement in innovative activity, to determine the factors which influence innovative behaviour. Examination of general involvement of teachers in the innovative activities suggests responsiveness and adaptability in terms of needs of students. Data was collected from 395 teachers of 24 randomly sampled higher schools on Long Islands with the help of Structure Properties Questionnaire (SPQ), the Rokeach Dogmatism Scale Form (RDSF), and Innovative Activity Instrument (IAI). Multiple regression was used for analysis. The SPQ was subjected to factor analysis for multi-dimensional treatment of Organisational Structure and RDSF score. Each of the 12 factors of the SPQ was entered as independent variables on the multiple regression equation

and regressed on IAP scores as the dependent variable.

It was found that the question (non-routine) "How power is distributed" was significantly related to decreased involvement in innovative activity. In the complexity dimension 'Professional Training required for occupational position' and increased involvement in innovative activity were also found to be significantly related. Significant relationship was also revealed between teacher open-mindedness and increased involvement in innovation activity. The question "How rules are used" and increased involvement in innovative activity were not found related. Relationship was also found among organisational structure, teacher belief system, and teacher involvement in innovative activity.

It indicates that a less structured school organisation allows for distribution of power and decision making, pro-gratives, flexibility in application of rules, and professionalism, and the individual teachers are open-minded, and are involved in innovative activity. Further study to determine variability in involvement in innovative activity is also suggested. The present study includes 10 personal variables of teachers to relate them with the innovative proneness by using the Innovative Proneness Scale consisting of 21 components distributed in three sections viz. the Inventory of Attitude of Innovation, the Situational and

Innovation Characteristics Scale, and the Change Related Values Questionnaire. Both the study being similar, Very (1978) is important for the investigator.

Deasre (1979) attempted to determine the teacher perception of their school organisational climate and of their Principal's leadership behaviour, and also the relationship between the two. The tools OCDQ and LBDQ developed by Halpin were used for this study. 286 of the 300 selected teachers of Bangkok, Thailand responded to these questionnaires. The variables employed in this study were sex, years of teaching experience, educational level of the teachers and the sex of the Principal. The methods used for data analysis were Halpin's prototypic climate, one-way analysis of variance, scheffe test and the Pearson Product-Moment correlation coefficient.

The findings of this study produced four conclusions : (1) the school climate tended to fall into the closed end of the open-closed climate continuum, (2) teachers with more years of teaching experience perceived their school climate as being open, (3) all the teachers in this study perceived their Principals as an effective leader, (4) there was a significant relationship between organisational climate and Principals leadership behaviour. No matter how teachers

perceived their school climate, they still perceived their Principal as an effective leader.

In the review of foreign studies several important researches directly and indirectly connected with the present investigation have been included to draw inspiration and establish the systematic development in the field of educational innovation in course of time. This process has also revealed the gaps in researches and is useful for planning future investigations. Further, the conclusions of researches conducted abroad need confirmation in Indian conditions. To meet this requirement subsequent section of this Chapter covers the review of researches done in India on the aspect of educational innovation.

2.4 Indian Background and Studies

There were lots of activities in the sphere of research in educational innovations during the fifties. Indian visitors to other countries brought their new ideas to India and considerable work began in the country also. During seventies the Centre of Advance studies in Education, Baroda, took on active lead in the area of change and nature of organisation. Gradually the attention shifted to individuals and at last the innovative proneness of secondary school teachers came under study.

Number of efforts were made in India during the post-Independence period for bringing changes in the education structure, curriculum, teaching methods etc. The secondary Education Commission (SEC) (1952-53) had made recommendations about Higher Secondary and multi-purpose schools, dynamic methods of teaching, establishing guidance services etc. This was followed up by the establishment of All India Council for Secondary Education (AICSE) and its various programmes for improvement of secondary education. The important programmes initiated by the Council were (1) Extension services in Schools (2) Examination reform (3) Improvement of science education, and (4) Experimentation by the teachers.

In 1961 the National Council of Education Research and Training (NCERT) was established. Its different departments became the sources of innovations in School Education. In 1966 the Education Commission (1964-66) recommended a number of measures for improvement of school education, work experience in school complex, institutional planning etc. These recommendations represented the efforts from the Central and State authorities to bring about change in education. In order to spread these ideas new organisations were established at the level of States. These included the State Evaluation Units (SEU), State Boards of Teachers Education (SBTE), and State Council of Education Research and Training (SCERT).

In 1964, the programme of extension Centres in India were evaluated. It became clear that there was a need to enquire into the change process in Indian Schools. The impact of new programmes was not found to be commensurate with the input in terms of resources and human efforts. There was, however, no planned attempt to study the process of educational change either in Indian Universities or in research organisations. A very modest effort was initiated by the NCERT in identifying the innovative practices in secondary schools and disseminating them through seminars.

The NCERT organised the first seminar on educational innovation and their diffusion in 1967 at Hyderabad. The participants of the Seminars were from Departments of Education, Psychology, Sociology and other such bodies as the National Institutes of Community Development (NICD), Gandhian Institute, etc. The deliberations of this Seminar resulted into creating the needed awareness to take up investigations into the process of educational change in schools.

After the seminar at Hyderabad, three studies were undertaken in Indian Universities in the area of factors influencing the diffusion of innovation in Indian School. Sardar Patel University approached the University Grants Commission for financial assistance to start a centre for

the study of education innovations but it was not approved. By 1969 one study at the Sardar Patel University was completed and another at the Osmania University was nearing completion. In this background the CASE at Baroda decided to undertake the systematic studies in the area of innovation and educational change process.

In India not much has been done in the field of innovative proneness. Pareek in his directory of 'Behavioural Science Research' in India compiled 114 studies on innovation but they were mostly on adoption and diffusion of innovations between 1925 and 1955. Majority of these were in the field of agriculture. The first remarkable effort in India was holding the seminar on innovation in 1966 at the Osmania University. This was followed up by Research studies at various levels, the first one being conducted by Rao (1967). A few background literature is discussed in brief in the succeeding paragraphs.

Bose (1958) reported 50 years gap between the development of a new practice and its adoption by the public schools when an average American school lags behind by 25 years. Bholra (1965) emphasised the need to recognise physical, social, and intellectual environments in studying the innovation. (Pareek and Chattopadhyay(1966) gave a two-step cognition behaviour - model). Bhogle and Shalini (1969) found that personality of the Headmaster

and organizational characteristics of the schools are more important in accepting innovations than the personality characteristics of teachers. Maniel and Lucio (1969) assigned the ability of an individual to perceive his own goals and roles to an effective leader.

Desia (1970) found that people with high JIM Score and those having greater achievement motive, and also those who liked learning, healthy school class room and the school climate ultimately increased pupils motivation towards their school at a significant level. Griffin and Pareek (1970) arrived at certain generalisation regarding steps for activating the process of change. Mahajan (1970) revealed that many leaders (Headmasters or Principals of schools) have failed in their academic leadership as a consequence of their administrative leadership traits.

In 1972 the M.B. Patel College of Education of Sardar Patel University, Vallabh Vidyanagar, Gujrat conducted a study of different areas of innovative category. This was a descriptive type of project. 37 innovations were collected under the broad heads - School administration, organisation and curriculum, class-room teaching, examination, physical education, and co-curricular activities being practised in secondary schools of Gujrat. This study did not deal with the teacher attitude or their psychological.

reactions towards the change. The important findings of this research included the factors which affected the diffusion process. It was found that the Headmasters' leadership style, financial position of the school and the value system of the institution influenced the diffusion process.

Bayati (1972) found that more open and autonomous climate schools are found in the urban areas and more paternal and controlled schools are in the rural areas. Patel (1972) found that there is no significant correlation between organizational climate and attitudes of teachers towards teaching profession. Joshi (1972) found that acceptance and resistance of innovations depend on situation and facilities in the institution, and on the leadership of the head.

Reddy (1972) adopted the organizational climate index from Stern and Stanhoff (1969) and found that :

- (1) small size schools show greater impulse for control than the bigger ones,
- (2) the standard of achievement is low in bigger schools,
- (3) small schools are better organised, and
- (4) Schools with staff of high average age show less adoptability than the schools having staff of younger age.

Bhagia (1973) studied the perceived characteristics of innovation with reference to diffusion in schools and found 20 specific characteristics to be

significantly related to diffusion of innovation in general. They included academic effectiveness, complexity, diversibility, efficiency, facilitation, meaningfulness, punctuality, prestige, relative advantage, structuralisation.

Buch and Buch (1973) studied change in secondary schools of Gujrat. The area of change studied included curriculum reconstruction, adoption of new methodology of class-room teaching, examination and evaluation, vocation guidance, teaching training etc. They located 30 innovations scattered over various fields of education in the Gujrat Secondary schools. They found an order of strength in training college personnel, seminar, Department of extension services, Director of education, and journals which act as powerful sources of innovations.

Patel (1973) concluded that variables like leadership, organisational climate, teacher morale, innovative school practices and progressiveness of school are highly correlated. He placed a great emphasis on the improvement of school leadership to improve school quality and effectiveness. He has also given three models of programme for training school leadership with a view to raising its effectiveness.

Parik (1973) studied the Organisational Climate and Teacher Morale of the schools of two districts of Gujrat. The findings included : (1) All the six types

of climates were found in the schools of two districts (2) 70 percent schools had the paternal, autonomous and controlled types of climate. Mukhopadhyay(1973) studied resistance to innovation and found that the administrative bureaucracy at the government level was a potent resistance to educational change. The roles of the District Inspectors of Schools was not clearly defined. Burden of administrative work and lack of academic freedom for them were other factors of hindrance to innovation-diffusion. The district level officers had more authority image than an academic leader image amongst the Principals and teachers.

Pillai (1973) studied the Organisational Climate, Teacher Morale and school quality of the secondary schools and tried to find out the relationship between organisational climate and staff morale; and innovativeness of the school and pupil performance. Her major findings were :

- (1) Openness of climate facilitates school to adopt new practices in greater number in shorter time.
- (2) The innovative ability of the school is significantly influenced by the three climate dimension viz. esprit, thrust and disengagement- the first two positively and the last negatively.
- (3) Both climate and morale of staff are positively and strongly related to the innovative ability and to pupil performance of schools. It can thus be concluded that openness of climate and higher staff morale are significantly related to school innovativeness

and pupil performance.

Desai (1976) concluded that Headmasters' leadership qualities are very much conditioned by the socio-cultural background and either previous or current political affiliations of the head and teachers govern the leadership qualities like - human relationships and consideration. In this opinion, democratic approach of the leader with qualities of consideration, recognition of needs and abilities of teachers and a policy of mutual respect lead to success.

Buch and Buch (1978) found that experimental attitude of Headmaster, academic interest of schools and the authority direction are major promoters of innovation-diffusion. The reasons for not introducing an innovation are teachers' attitude (negative) and lack of efficiency, shortage of funds and non-availability of resources (academic) and that of discontinuance of an innovation are transfer of teacher incharge & loss of interest of teachers. The loss of zeal was found to be more time-consuming than expected and burdensome on the part of the teachers.

Balasubramanian (1978) studied the strategies adopted for the installation of innovations in the high schools in Vellore (Tamil Nadu). This was a normative study and compared the status of the phenomenon observed with expectancy of innovativeness and with the theoretical strategy models of Havelock.

Ramoji Rao (1978) studied the Organisational behaviour in schools and concluded that the authenticity of the Organisational behaviour of the members would lead to their job satisfaction and excellent academic performance of pupils. Such a behaviour of the members of the school enabled them to enjoy high job satisfaction and as a result they could move towards the goals of the schools.

Studies on innovation in education are of recent origin in India. Since 1970 the Centre of Advanced Study in Education (CASE), faculty of Education and Psychology, Maharaja Sayaji Rao University of Baroda has identified this area for intensive and sustained study. The earlier researches were few in number and were not detailed. A few of the recent and important studies are being reviewed in the subsequent paragraphs.

Subba Rao (1967) investigated the factors which contribute to the promotion of innovations. He found that (1) more innovative schools have better facilities, more audiovisual aids, special rooms, books and magazines for studies and teachers. Lack of these facilities is one of the inhibiting factors for innovativeness. (2) Innovative school, in general are more progressive and enlightened in their policies. (3) The Heads of such schools are also innovators and are distinguished by more academic and professional qualifications, have special talents, considerable

number of hobbies, have more than 10 years of service, have visited 5-6 States, have been educated in different places of study, are more professional minded, well read, are in touch with current literature, have personal liberties, have membership in 2 or 3 associations and display professional leadership by directing seminars, workshop etc. They are more ego-involved, job-conscious and are interested in the quality of education. (4) Age is no bar to the head of an institution to try innovations or to adopt new practices. (5) The staff of more innovative schools are better qualified and trained, have visited other states, are more professional minded. (6) Age of the staff is not significantly related to innovativeness of the school system. (7) Major sources of innovations in India had been the Department of Extension services of the Teachers Training Colleges, Headmasters, Seminars, Workshops, Inspectoral Books, visitors, experts, State Deptt. of Education, State Evaluation Unit, SSC Board, Employment Bureau, Research Laboratories, Universities Scientists, Headmasters' Association etc. (8) the single sex (uni-sex) schools are more innovative than the co-educational schools. (9) Schools with higher class teacher ratio, student strength between 500 to 750 and those under the management of University, missionary and industry are more innovative. (10) Higher Secondary and multipurpose schools are more innovative than Ordinary high schools. (11) Academic and professional

qualities of the headmaster influences the innovation diffusion process, (12) the main inhibiting factors towards innovativeness of the school system are the rigid Govt. rules about syllabus and text books, inadequate grants, too much of office and Organisational work for Principal, less equipped staff, lack of initiative interest on the part of staff, pupils from backward classes.

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

Anjanuyulu (1968) tried to find out the reasons for dissatisfaction among the secondary school teachers and its effect on the education of pupil. He constructed a questionnaire containing 17 questions covering various aspects. He also listed 24 specific causes of dissatisfaction one of which was to be endorsed by those respondents who were not satisfied with the teaching job. Space was also provided for mentioning other reasons, if any. The questionnaire was issued to 1000 randomly selected teachers of 102 secondary schools of Andhra Pradesh. 617 teachers responded among which 37 percent were satisfied from their job. A check questionnaire was again issued to those 227 teachers who seem to be 'satisfied' for checking the accuracy of their first response. In addition to the questionnaire 130 persons

from among the correspondents, inspecting officers, headmasters and retired teachers were interviewed in person.

It was found that only satisfied teachers can produce desirable qualities and attitudes in pupils but no responding teachers was fully satisfied. Even those who had expressed satisfaction initially were dissatisfied on certain aspects. Based on the data analysis the dissatisfying factors were divided into 'strong', 'weak' and 'conditional' dissatisfiers. It was revealed that the respondents of conditional dissatisfier group of factors could be satisfied by change of situation. The examples of such factors is frequent transfers, low standard of pupils and interference of politicians. Removing these causes could convert the teachers into job satisfied professionals.

The common dissatisfiers in all types of school management were : inadequate salary, lack of academic freedom, and heavy load of work. The types of management studied were : Committee, Mission, Local Board, Municipality, Zila Parishad and State Government Department. The peculiar causes of dissatisfaction among male, married female and unmarried female teachers were also concluded. Job satisfaction was also related to the demographic variables like urban, rural, age, new entrants, trained, untrained.

Regarding the effect of job satisfaction on the pupil education it was found that the satisfied teachers contributed

to better educational development than the dissatisfied teachers. It was hypothesised that the satisfaction a teacher enjoys in his job gives him energy, vigour and vitality which in turn makes him a devoted worker and enables him to make due contribution towards the development of pupils. This was confirmed from the results.

Development of pupil involves multi-dimensional approach. In addition to progress in academic subjects it covers the aspects of habits, attitudes, skills, and qualities of character etc. The qualities of a teacher and his attitude towards his profession decides to a large extent the quality of education received by his pupils. The students, particularly at secondary level, possess two important qualities - imitation and suggestibility. The teacher is their hero and hence his attitude and qualities exert much influence in shaping several qualities in the pupils.

The approach of Anjanuyulu was more from Psychology angle than from education but this was the first study in India in which the job satisfaction of teachers was investigated. There are several studies in the industrial field particularly on labour but teachers were not studied from this angle. This study did not relate the aspect of educational innovations with teachers' job satisfaction but its findings have opened this aspect for study. This study

is considered important for the investigator even though the aims, tools and the nature of sample differ. The common aspects between the two studies are the focus on teachers and secondary level of education.

Bhogle (1969) concentrated on the psychological and organisational correlates of innovation acceptance. She found that : (1) the cosmopolitanness and age of teachers are significantly related to acceptance of innovation, (2) the innovations of science club, deputation of teachers to refresher courses and teaching with audio-visual aids were introduced as they were more compatible, more divisible and less complex than the innovation of improvement of school library and child guidance clinic, (3) no relationship existed between adoption of innovation by the headmaster and the teachers of the same school, (4) the schools with high adoption rate have low rank on teachers acceptance, (5) headmasters having democratic and favourable attitude towards teaching, more experienced, drawing higher salary, having low rate of conflicts are more innovative, (6) large and multipurpose schools are more adoptive.

In a nut shell, Bhogle found the acceptance of innovation to be an institutional factor influenced more more by the personality of the Headmaster/Principal than the teachers. Bhogle concluded that the individual experience in the profession and his innovativeness have

sufficient positive relationship. This study is important being one of the earliest attempts in India to study the mechanism of educational change which indirectly includes innovation and innovative proneness.

Pratibha (1969) studied innovation in relation to the schools in Gujrat. She found that only in a few schools the innovations were institutionalised and some schools tried innovative practices more for prestige value than for the quality and educational worth. She found (1) that the factors contributing favourably to innovation were :

- (a) Dynamic leadership qualities of the head, (b) progressive outlook of the managing committee of the school, (c) Teachers' cohesiveness, team spirit and identification with school, (d) the watchful student community alongwith an alert and cooperative local community, and (e) extent of guidance from local extension services department.

(2) the factors inhibiting or obstructing innovations in schools were :

- (a) A traditional and conservative Principal, (b) Over-cautiousness of the Principal without liberal attitude, (c) Examination result-oriented management, (d) Teachers' Lack of faith in innovation, (e) Interference of local politics into school, (f) Controlled school climate leading to staff disengagement, (g) Older age of faculty members, (h) Cost factor, (i) Delay by the department of education to approve innovation due to non-conformity to departmental

participation, and (j) Heavy work load of teachers. This study is important in the field of innovation adoption. It also brings out the necessity of dynamic leadership qualities of the head.

Zavery (1969) tried to find out innovative practices and analysed the factors affecting innovations leading to change in the schools of Kaira Districts of Gujrat State. He observed that (1) the change agents faced various types of difficulties but change was welcome by the teachers as it finally developed team spirit, built up school climate, and created convictions, (2) the teachers liked change as it helped them to develop new value systems and provided opportunities and challenges to them, (3) the innovative practices are adopted in the area of teaching practices, examinations curricular activities. This study has some common aspects with the present research and hence is of importance.

Rai's (1972) concentrated on teacher's characteristics, and its relationship with innovation acceptance by teachers. She studied 30 different aspects of teachers under several heads, namely, demographic variables, institutional category, communication behaviour, psychological and personality variables, socio-economic status and organisational climate.

In case of time of adoption, perceived frequency of horizontal communication about the innovation,

professional communication behaviour described opinion leadership, feeling of security, cosmopolitaness, sex, age, vertical communication, self-designated opinion leadership, urban and rural background and attitude towards the teaching profession yielded an R value of 0.3413 and this explains 11.65 percent variance.

Seven variables viz. teachers' perception of students' benefit from the innovation, perceived change orientation of the Principal, ascribed opinion leadership, perceived cohesiveness of the school faculty, organisational climate, the satisfaction and need for autonomy gave an R value of 0.5964 with the criterion variable internationalisation explaining 35.57 percent of variance.

Six variables were found to be significantly related with self-perceived change orientation. These are perceived change-orientation of the Principal, teachers' perception of students benefit from the innovation, socio-economic status, perceived Principal's support of the innovation, perceived source credibility of the Principal and perceived Psychological distance between other teacher and the Principal, which together yielded an R Value of 0.5017 to explain 25.17 percent variance of the criterion.

Eight predictors of the total score of all the four criteria variables are perceived change orientation

of the Principal, teachers' perception of student's benefit from the innovation, ascribed opinion, leadership, cosmopolitaness, socio-economic status, teacher's perception of the student's attitude towards the innovation, experience and general mass media exposure. They, together, yielded an R value of 0.5655 and explained 31.98 percent of variance.

Rai concluded that teaching experience has a premium. More experienced the teacher is more early he will come to know of the innovation, will adopt them earlier, will give more internalization and will perceive himself to be more change-oriented. Also the Administrators should realise their important role of acceptance of change in general and support innovations in particular. Friendly atmosphere should be created in the schools. The Principal should demonstrate the acceptance of change.

The study of Rai is of importance to the present research as it connects to teacher characteristics with educational innovation. It also covered the aspects of organisational climate which has been taken up as a correlate in the present study of innovative proneness of teachers.

Buch (1972) studied the Headmaster's characteristics and attitude. She tried to find out the conditions which promote adoptability in Indian schools. She found (1) no relationship between school adoptability and

any of the eight variables of Organizational climate. The variables like experience, long duration of service in the same school, academic qualification, and role satisfaction of the Principal had no bearing on adoptability. Out of 49 variables studied only 13 were found to be predictors of school adaptability, (2) The predictor variables were : inter-school visitation, self-rated administrative ability, parents involvement, professional meetings attended, feeling of security, training college support of innovation, teacher's rating of administrative ability, community involvement, equilateral relationship with training college personnel, interest of the management, self-rated administrative ability, and cosmopolite orientation. The first five of these variables were found to be the best predictors of school adoptability, (3) The schools with more trained, qualified and cosmopolite teachers were more innovative and had less turnover of staff, (4) more outside visits by the staff provided them with special abilities and better professional behaviour, (5) the staff of more innovative schools were better qualified and trained, (6) Age of the staff was not related to innovativeness of the school system.

The headmaster's attitude and characteristics effect his leadership behaviour which is under study by the investigator. Both (1972) is, therefore, important.

Ashma (1973) identified 8 factors relating to innovation and change in the secondary schools of Bulsar

and Surat districts of Gujrat. These are : (1) Clarity in perception of philosophy and goal, (2) Better physical amenities (building etc.), (3) Higher innovative proneness of the Principals, (4) Low number of non-innovative teachers, (5) Higher mean score of the upward category for the adopters, (6) Higher score on the involvement of teachers, (7) Lower scores of downward shift for adopters, and (8) Higher scores on the total evaluation of the school.

She also found 10 factors which cause change - proneness. These are : (1) Dissatisfaction of the staff, (2) Headmaster's key role in innovation, (3) Identification of a few innovators and legguards, (4) Mental calibre of the innovator, (5) Proper planning, (6) appreciation, (7) freedom, (8) encouragement, (9) involvement and cooperation, and (10) love and dedication for profession.

It was also found that (a) Principal plays the key role in the acceptance of innovative ideas and in making the school highly or poorly innovative, (b) Satisfaction among the teachers also play significant role in innovation.

Sharma (1973) studied the organisational climate of the Secondary Schools of Rajasthan and found out negative correlation between faculty age and esprit; faculty stay at the present school and aloofness; teacher satisfaction and disengagement; teacher satisfaction and (psycho-physical) hindrance, leadership behaviour of the Principal

and dis-engagement; leadership of the head and hindrance; effectiveness of the Principal and hindrance; Principal's effectiveness and disengagement; school climate and faculty age; and lastly between school climate and faculty experience. Other major findings were : (1) there was no significant difference between the climates of urban and rural schools; Government and Private schools; and girls and boys schools, (2) the school climate is dependent of variables such as school size, staff experience or stability and the experience of the head-masters, (3) The schools of different climate types were found to differ significantly in terms of teacher satisfaction.

Sharma (1973) is considered to be important for the present research as it evaluated the effects of leadership behaviour and teacher satisfaction on the organisational climate of the school.

Sharma, Buch and Rai (1973) found from their comparative study of the Organisational Climates of secondary schools that there are significant differences on the sub-tests 'hindrances' and 'consideration'. Schools with open climate in Rajasthan significantly differed from similar types of schools of Gujrat on these two sub-tests. The schools with closed climate of the two states significantly differed on the sub-tests of intimacy and production emphasis. The familiar climate

schools differed on the sub-tests of hindrance, intimacy and production schools differed on the sub-tests of hindrance, intimacy and production emphasis. The controlled climate schools of Rajasthan scored better on the sub-test of production emphasis. Gujrat schools scored higher on the sub-test of hindrance.

The most significant finding of this study was about the behaviour of the leader. In case of Rajasthan, it was highly task-oriented but modestly considerate which made their faculties to feel both high social need satisfaction and job satisfaction which resulted in high morale of the faculties. In case of Gujrat 'Disengagement' element was high and this made the leaders to behave impersonally.

This study is important for the investigator as it covers the aspects of leader behaviour and organizational climate which is under study in the present research.

Agrawal (1974) tried to find out the characteristics of teachers related to their innovative proneness. This was a correlation and prediction study of 15 variables, which included the variables of age, educational qualification, recency in training, mobility, sex and teacher morale. Teacher morale included teacher rapport with Principal, satisfaction with teaching, rapport among teachers, teachers' salary, teachers' work load curriculum issue, teacher status, community support of education, school facilities and services, and community pressure.

The relationship of these variables was studied with innovative proneness which was the criterion variable. She adopted the Miller's inventory on change proneness to measure the innovative proneness of teachers. 224 teachers of randomly selected schools responded to the research survey.

She found that : (1) Mean score of the innovative proneness of male teachers was higher than that of the female teachers, (2) Mean score of 12 independent variables of male teachers was higher than that of female teachers, (3) Mobility (the independent variable) was significantly related (at 0.01 level) to the whole group, Taking sex-wise, the mobility of male teachers was significantly related to all, (4) Four independent variables (viz. age, sex, educational qualification, and recency in training) did not have significant relationship with innovative proneness, (5) the correlational analysis revealed that the 10 dimensions of teachers' morale were significantly related to the innovative proneness at 0.01 level, (6) the six variables (viz. teacher rapport with Principal, satisfaction with teaching, teacher salary, communicative support of education, school facilities and service, and community pressures) predicted upto 72.3 percent of the total variance of innovative proneness.

The study of Agrawal is important for the present research. Many variables are common among them. Both researches are also in respect of the innovative proneness of teachers.

Shelat (1974) studied the Organisational Climate, Teacher Morale and Pupil Motivation towards institution in the secondary schools of Baroda District. Her major findings were : (1) the morale was high in small schools and average in large schools, (2) only 30% of schools had teacher morale, (3) teacher morale was average in 52% schools and was particularly low in 1.8% of schools, (4) The schools of Baroda District showed average morale and the average school effectiveness, (5) the HH Pattern of leadership behaviour of school Principal was closely associated with open, autonomous and controlled climates; LL Pattern with the closed climate; HL Pattern with the autonomous, controlled and closed climate; and LH Pattern with open and autonomous climate schools. From this she concluded that the leadership behaviour of Principals contribute positively to the effectiveness of the school.

The studies of Pandey (1975) and Pengnu (1976) supported these findings of Shelat (1974) in the matter of existence of significant positive relationship between the organisational climate and effective leadership. Findings of Choksi (1976) and Takmani (1976) are also on similar lines. The aspects of organisational climate

classified from the climate continuum from openness to closedness, (3) Leadership is firm and determined and task-oriented in controlled climate schools, (4) Leadership is weak and uncertain and task proneness is low in familiar climate schools, (5) Leadership provides motivation to teachers in closed climate schools.

This study has an important bearing on the present research. Both include the aspects of leadership behaviour and organisational climate.

Darji (1975) in his study of leadership behaviour of the school Principals and its correlates took the innovative proneness of the school as one of the correlates. He found that : (1) most of the schools with high innovativeness have Principals manifesting high initiating structure and high consideration (HH Pattern) and Principals manifesting high 'initiating structure' and low 'consideration' (HL Pattern) whereas the schools with low innovativeness have Principals manifesting low 'initiating structure' and low 'consideration' (LL pattern) and the Principals manifesting low 'initiating structure' and high 'consideration' (LH Pattern) of leadership behaviour, (2) The heads show inadequacy with regard to their initiating structure due to want of the required professional training. The consideration qualities of the head differ according to the nature of self-perceived roles in relation to the organisational set up of the schools.

(3) there is a positive correlation between the two dimensions of the leadership behaviour of Principals of the schools, (4) The Principals of the secondary schools manifest mostly the HH (49%) and LL (36%) patterns of leadership behaviour leaving middle positions sufficiently vacant, (5) The HH pattern of leadership behaviour is associated with open, autonomous and controlled climates, and the LL pattern with the closed climate, Principals' effectiveness is therefore a significant predictor of organizational climate, (6) Principals effectiveness and leaders' satisfaction are positively related, (7) Principal plays the key-role in the acceptance of innovative ideas and in making the school highly or poorly innovative, (8) There is a positive correlation between openness of climate and innovativeness of the school, (9) In the open climate schools all Principals manifest HH pattern. Most of the schools having Principals with HH pattern fall in open, controlled, paternal and autonomous climate type schools whereas most of the schools having Principals manifesting the LL pattern fall in the closed climate type, (10) Most of the schools having high innovativeness have Principals manifesting HH pattern, (11) Most of the male Principals manifest HH pattern and most of the female Principals manifest LL pattern, (12) Relationship between the male Principals and the 'initiating structure is significant, (13) Principals of Boys schools manifest

HH pattern. The percentage of schools having Principals manifesting the LL pattern is higher among the co-education (mixed) schools.

The aspects of leadership behaviour and its relationship with innovativeness as found in Darja(1975) is of important for the investigation.

Panchal (1977) aimed to design a tool to measure the innovative proneness of teacher educators of Secondary Teachers Training Colleges of Gujrat, Study their innovative proneness, find out other characteristics, if any, related to their innovative proneness; and study the factor analysis of the tool developed by him. He selected all the 40 Secondary teachers - training colleges of Gujrat for this study. The Innovative Proneness Scale developed by him consisted of 150 items - 30 in Section I, 60 in Section II, and 60 in Section III. This scale was used to collect the opinions of 250 teachers educators. The data was used to study the mean scores of the prepared scale and its 21 components, the innovative proneness scores of teacher educators according to their age, sex, experience, academic and professional qualification; and the factor analysis of the prepared scale.

The major findings of Panchal were as follows :

(A) For Tool Construction : (1) 21 components of the I.P.S. were distributed in the three sections - 7 in

Section I, 8 in Section II and 6 in Section III.

(2) the validity of the I.P.S. was found out by the content validity, correlating the ratings of the Principals with the rating of the teacher educators and item analysis by phi coefficient formula. The Phi values of 200 items ranged between 0.16 and 0.82. (3) The reliability of the three sections of the I.P.S. by test-retest and split-half methods were as follows :-

<u>Section</u>	<u>By the Method of test-retest</u>	<u>Split-half</u>
I	0.89	0.90
II	0.93	0.95
III	0.90	0.92

(4) The Percentile norms of components were :

<u>Section</u>	<u>Components</u>	<u>Percentile</u>	
		<u>Highest</u>	<u>Lowest</u>
I	Individualisation, Teaching-learning process, Internal School Organisation and Staff Development	25.0	-
	School community relationship	-	9.0
II	Staff norm	58.0	-
	System norm	-	8.0
III	Traditionalism, Progressivism and Change proneness	50.0	-
	Conservatism	-	15.0

- (5) All the components of the I.P.S. were mutually inclusive, cohesive and true to the purpose of scale.
- (6) The mean scores of the teacher-educators for the three sections were 126.18, 212.47 and 206.59, respectively.

(B) For Personal Variables :

(I) Age. (1) above 35 years teacher educators were more change-prone than those below 35 years. (2) Age did not bear significant relationship with the components of attitude to innovations. (3) No significant relationship existed between age and situational characteristics and the characteristics of innovation itself. Same was the case between the age and the components of these two aspects taken separately. (4) the age had nothing to do with the change related values taken together. (5) Increase in age increased conservatism.

(II) Sex. (1) No significant difference existed for the attitude towards innovation as a whole or for its components as per sex. (2) No significant relationship existed between the sex and 'situational or innovation characteristics as a whole or with any component of these two groups. (3) The mean difference was significant between the two sexes of teacher-educator in the context of 'change related values' as a whole as well as for its components.

(III) Teaching Experience. (1) Teaching experience had no significant relationship with the attitude to innovation. (2) More experienced teacher educators perceived the

importance of 'teaching resources' at a higher attitude to innovation. (3) Teaching experience did not bear significant relationship with the situational characteristics and innovation characteristics as a whole as well as with their components. (4) Teaching experience had nothing to do with change related values and its components.

(IV) Academic Qualification. (1) Academic qualification had no significant relationship with attitude to innovation as a whole. (2) B.A. degree holders manifested higher 'individualisation' than M.Sc. degree holders. (3) B.A. degree holders had significant relationship with 'situational characteristics' and 'innovation characteristics'. (4) M.A. degree holders had significant relationship with 'Administrative Support', compatibility and riskness. (5) M.A. degree holders were significantly related to change related values. (6) M.A. and M.Sc. degree holders had significant relationship with 'Progressivism, Venturesomeness, conservatism and change proneness.

(V) Professional Qualification. (1) Professional qualifications had no significant relationship with attitude to innovation as a whole. (2) M.Ed. degree holders showed significant relationship with teaching learning process. (3) Professional qualifications had no significant relationship with situational characteristics and innovation characteristics as a whole as well as with their components. (4) Ph.D. degree holders were significantly related with change related values and progressivism.

- (VI) Mobility . (1) Mobility was not significantly related with attitude to innovation taken as a whole. (2) Mobility was significantly related with teaching resources. (3) Mobility had no significant relationship with situational characteristics and innovation characteristics taken together as well as with their components. (4) Mobility was significantly related with venture-someness and change proneness.
- (VII) In-service Education. (1) In-service education was significantly related to attitude to innovation. (2) In-service education was significantly related to teaching learning process, teaching resources and school community relationship. (3) In-service education was significantly related to situational characteristics and was not so related to innovation characteristics (4) In-service education was significantly related to staff norms, system norms and cosmopolitaness. (5) In-service education was significantly related to change related values. (6) In-service education was significantly related to dogmatism and conservatism.
- (VIII) Reading Habit. (1) Reading habit was not significantly related to attitude to innovation and to its components. (2) Reading habit was not significantly related to situational characteristics and innovation characteristics taken together or with their components taken separately. (3) Reading habit was significantly

related to complexity and compatibility. (4) Reading habit was not significantly related to change related values taken together or to its components.

- (IX) Job Satisfaction. (1) Professional job satisfaction was not significantly related to attitude to innovation as a whole or to its components. (2) Professional job satisfaction was significantly related to traditionalism.

The study of Panchal is important for the present research as the Innovative Proneness Scale constructed by him has been adopted by the investigator. Most of the personal variables are also common .

Taking clues from Panchal (1977), Patel (1979) studied the innovative proneness of secondary and higher secondary school teachers of Gujrat. A tool was constructed to measure the innovative proneness of teachers on the same lines as Panchal (1977) did for the teacher educators. Major findings of Patel can be grouped in the four categories viz. (a) Tool construction, (b) Teacher Innovative proneness, (c) Personal variables and (d) continuous variables.

(A) Tool Construction.

(1) 21 components of the I.P.S. were classified in the 3 sections like that of Panchal (1977). (2) Validity of the inventory was found out in the same manner as was done by Panchal and the phi values of 200 items ranged from 0.16 to 0.82. (3) The reliability was also found out

on the lines of Panchal and the scores were as follows :-

<u>Section</u>	By the Methods of	
	<u>Test-re-test</u>	<u>Split half</u>
I	0.84	0.91
II	0.77	0.90
III	0.85	0.67
AS a whole	0.86	0.79

(4) The percentiles of the components were as follows :-

<u>Section</u>	<u>Components</u>	<u>Percentiles</u>	
		<u>Highest</u>	<u>Lowest</u>
I	Individualisation, teaching-learning process, internal school organisation and staff development.	25.0	-
	School-community relationship and curriculum organisation.	-	8.0
II	Staff norms	52.0	-
	System Norms	-	7.0
III	Change proneness	50.0	-
	Conservatism	-	19.0

(5) All the 21 components of the I.P.S. are mutually inclusive, cohesive and true to the purpose of the scale.

(6) The mean scores of teachers for the 3 section were 117.359, 204.642 and 212.847, respectively.

(B) Teacher Innovative Proneness :

(1) The mean as a whole was highest in Banaskantha district and lowest in Dang district. (2) The Girls schools

teachers gave the highest mean and those of 'Boys' schools the lowest. (3) Majority of the teachers fall into the moderate category. (4) Female teachers gave the higher mean than male. (5) Teachers with M.Com. degree gave highest mean and those with SSC Certificate the lowest. (6) Teachers with T.D. qualification gave the highest mean and those with B.T. the lowest. (7) Teachers without mobility gave higher mean than those who changed the schools. (8) Teachers with above 35 years of age, more than 5 years teaching experience, some in-service education, professional reading habits and professional satisfaction gave higher mean score than their counterparts.

(C) Personal Variables Proneness :

(1) Age is highly and significantly related with curriculum organisation, teaching-learning process, teaching resources, internal school organisation, staff development, attitude to innovation taken as a whole, administrative support, staff norms, system norms, complexity, compatibility, riskness, traditionalism, and innovative proneness as a whole. It is significantly related with individualisation, situational and innovation characteristics as a whole, progressivism, and change related values as a whole.

(2) Sex is highly and significantly related with individualisation, curriculum organisation, teaching-learning process, teaching resources, internal school organisation, staff development, attitude to innovation as a whole, administrative support, staff norms, system norms, complexity,

compatibility, riskness, localiteness, cosmopoliteness, the situation and innovation characteristics as a whole, traditionalism, conservatism, change proneness, the change-related values as a whole, and innovative proneness as a whole. It is significantly related with progressivism.

(3) Teaching Experience is highly and significantly related with individualisation, curriculum organisation, teaching-learning process, teaching resources, internal school organisation, staff development, attitude towards innovation as a whole, administrative support, staff norms, traditionalism, progressivism, and venturesomeness. It is significantly related with complexity, compatibility, riskness, localiteness, cosmopoliteness, conservatism, change proneness and change related values as a whole.

(4) Academic qualification is highly and significantly related with individualisation, curriculum organisation, teaching-learning process, internal school organisation, staff development, school community relationship, administrative support, staff norms and venture-someness. It is significantly related with innovative proneness as a whole. Academic qualification is also highly and significantly negatively correlated with system norms.

(5) Professional qualification is highly and significantly related with individualisation, curriculum organisation, teaching-learning process, internal school organisation

staff development, school community relationship, administrative support, staff norms, progressivism, venture-someness, and conservatism. It is also highly and negatively related with system norms. (6) Mobility is highly and significantly related with individualisation, curriculum organisation, teaching-learning process, teaching resources, internal school organisation, staff development, attitude towards innovation as a whole, administrative support, staff norms, complexity, localiteness, traditionalism, progressivism, conservatism, and change - proneness. It is significantly related with compatibility and cosmopoliteness. (7) In-service education is highly and significantly related with individualisation, curriculum organisation, teaching-learning process, teaching resources, staff development, attitude towards innovation as a whole, administrative support and staff norms. (8) Professional reading habit is highly and significantly related with curriculum organisation, teaching-learning process, teaching resources, staff development, attitude to innovation as a whole, administrative support, staff norms, system norms, complexity, traditionalism, change related values as a whole. It is highly significantly and negatively related with school community relationship and dogmatism. It is also significantly related with internal school organisation, riskness, cosmopoliteness, progressivism, and innovative

proneness as a whole. It is also significantly and negatively related with venturesomeness. (9) Professional satisfaction is highly significantly related with curriculum organisation, teaching-learning process, teaching resources, internal school organisation, staff development, attitude towards innovation as a whole, administrative support, staff norms, complexity, compatibility, cosmopolitaness, the situational and innovation characteristics as a whole, traditionalism, conservatism, change proneness, change-related values as a whole, and innovative proneness as a whole. It is significantly related with system norms and localiteness. It is also significantly and negatively correlated with venturesomeness.

(D) Continuous Variables :

(1) Individualisation is highly significantly related with curriculum organisation, teaching resources, internal school organisation, staff development, school community relationship, administrative support, staff norms, progressivism and venturesomeness. It is significantly related with teaching-learning process, attitude to innovation as a whole, and dogmatism. It is also highly significantly and negatively related with change proneness and significantly negatively related with cosmopolitaness.

(2) Curriculum organisation is highly and significantly related with teaching-learning process, teaching resources, internal school organisation, staff development, school community relationship, attitude to innovation as a whole,

administrative support, staff norms, progressivism and venturesomeness. It is significantly related with complexity and conservatism. (3) Teaching-learning process is highly significantly related with teaching resources, internal school organisation, staff development, school community relationship, attitude to innovation as a whole, administrative support, staff norms, conservatism, change proneness, change related values as a whole, and innovative proneness as a whole. It is significantly related with system norms, complexity, compatibility, situational and innovation characteristics as a whole, traditionalism, and progressivism. (4) Teaching resource is highly significantly related with internal school organisation, staff development, school community relationship, attitude to innovation as a whole, administrative support, staff norms, system norms, complexity, compatibility, riskness, localiteness, cosmopoliteness, the situational and innovation characteristics as a whole, traditionalism, progressivism, conservatism, change proneness, change related values as a whole, and innovative proneness as a whole. (5) Internal school organisation is highly significantly related with staff development, school community relationship attitude to innovation as a whole, administrative support, staff norms, system norms, compatibility, cosmopoliteness, traditionalism, progressivism, conservatism, and change related values as a whole. It is significantly related with complexity, situational and innovation characteristics as a whole and innovative proneness as a whole. (6) Staff development is highly significantly related with school community

relationship, attitude to innovation as a whole, administrative support, staff norms, change related values as a whole and innovative proneness as a whole. It is significantly related with compatibility. (7) School community relationship is highly significantly related with administrative support, staff norms, and dogmatism. It is significantly related with conservatism and significantly negatively related with system norms. (8) Attitude to innovation as a whole is highly significantly related with administrative support, staff norms, system norms, complexity, compatibility, riskness, localiteness, cosmopoliteness, situational and innovation characteristics as a whole, traditionalism, conservatism, change proneness, change related values as a whole, and innovative proneness as a whole. It is significantly related with progressivism. It is also significantly and negatively related with dogmatism. (9) Administrative support is highly significantly related with staff norms, system norms, complexity, compatibility, localiteness, cosmopoliteness, situational and innovation characteristics as a whole, traditionalism, progressivism, conservatism, change related values as a whole, and innovative proneness as a whole. It is significantly related with change proneness. (10) Staff norms is highly significantly related with system norms, complexity, compatibility, localiteness, cosmopoliteness, traditionalism, progressivism, conservatism, change proneness, change related values as a whole, innovative proneness as a whole, and innovative proneness as a whole. It is

significantly related with riskness, situational and innovation characteristics as a whole, and venturesomeness.

(11) System norm is highly significantly related with complexity, compatibility, riskness, localiteness, cosmopoliteness, situational and innovation characteristics as a whole, traditionalism, progressivism, venturesomeness, conservatism, change proneness, change related values as a whole, and innovative proneness as a whole. (12) Complexity is highly significantly related with compatibility, riskness, localiteness, cosmopoliteness, situational and innovation characteristics as a whole, traditionalism, progressivism, conservatism, change proneness, change related values as a whole and innovative proneness as a whole. It is significantly related with venturesomeness. (13) Compatibility is highly significantly related with riskness localiteness, cosmopoliteness, situational and innovation characteristics as a whole, traditionalism, progressivism, conservatism, change proneness, change related values as a whole, and innovative proneness as a whole. It is significantly related with dogmatism. (14) Riskness is highly significantly related with localiteness, cosmopoliteness, situational and innovation characteristics scale as a whole, traditionalism, progressivism, dogmatism, venturesomeness, conservatism, change proneness, change related values as a whole and innovative proneness, (15) Localiteness is highly significantly related with cosmopoliteness, situational and innovation characteristics

as a whole, traditionalism, progressivism, dogmatism, venturesomeness, conservatism, change proneness, change related values as a whole and innovative proneness as a whole.

- (16) Cosmopolitanism is highly significantly correlated with situational and innovation characteristics as a whole, traditionalism, progressivism, venturesomeness, dogmatism, venturesomeness, conservatism, change proneness, change related values as a whole and innovative proneness as a whole. (17) Situational and innovation characteristics as a whole is highly significantly related with traditionalism, progressivism, conservatism, change proneness, change related values as a whole, and innovative proneness as a whole. It is significantly related with venturesomeness. (18) Traditionalism is highly significantly related with progressivism, dogmatism, venturesomeness, conservatism, change proneness, change related values as a whole, and innovative proneness as a whole. (19) Progressivism is highly significantly related with dogmatism, venturesomeness, conservatism, change proneness, change related values as a whole, and innovative proneness as a whole. (20) Dogmatism is highly significantly related with venturesomeness, conservatism and change proneness. (21) Venturesomeness is highly significantly related with conservatism, and change proneness. It is significantly related with change related values as a whole. (22) Conservatism is highly significantly related with change proneness, change related values as a whole and innovative proneness as a whole. (23) Change proneness is highly significantly related with change related values as a whole and innovative proneness as

a whole. (24) Change related values as a whole is highly significantly related with innovative proneness as a whole.

The present study has a lot in common with Patel (1979). The personal and continuous variables and the total of IPS are common. The level of research in both is upto Secondary education. Patel (1979) is therefore of special value for the present research.

Purushottam (1979) studied innovative educational institutions at secondary level in Tamil Nadu and found that :

- (1) Adequate goal focus increases role awareness in the members and makes the system dynamic,
- (2) increased linkage with resource system makes the system more modern,
- (3) higher frequency of contacts with as many outside persons and agencies as possible, increases the cosmopolitaness and reduces the localiteness in the members of the system,
- (4) if the design of innovation is made by the members of a system, there is a higher rate of member acceptance of these innovative ideas,
- (5) as against an authority decision, collective innovation decision in a system promotes the innovation acceptance among its members,
- (6) the schools having downward flow of direction from superordinates to subordinate, suffer a poor organisational health resulting into frequent discontinuance of innovation,
- (7) support from the administrative unit to the adoption unit promotes the rate of adoption of an innovation,
- (8) resourcefulness of the headmaster enhances the source credibility of

of the system in the adoption units, (9) Headmaster's client-oriented approach brings about source receiver homoplasy in the system, (10) care to assess the relative advantage of an innovative practice before suggesting it for adoption by the headmaster averts dysfunctional consequences, (11) the success of change agents (the headmaster) is positively related to his efforts of increasing his client's abilities to evaluate the innovative practice, (12) teacher morale and organisational climate are positively related, (13) leadership behaviour and teacher morale are positively related.

Purushottam (1979) was similar to the Miles (1965) concept of organisational health. According to Miles, a healthy organisation not only ~~live~~ survives long time and continuously develops ~~but~~ extends its surviving and coping abilities. It is, however, only recently that the instruments have been designed to measure the properties mentioned by Miles viz. goal focus, communication adequacy, optional power equalisation, resource utilisation, cohesiveness, morale, innovativeness, autonomy, adoption, and problem-solving adequacy. In India however serious studies on school organisational health are yet to be launched. A healthy system would tend to invent new procedures, move towards new goals, produce new kinds of products, diversify itself and become more differential over time. Such a system would grow, develop and change rather than remain stagnant.

The study of Purushottam has touched the aspects of cosmopolitaness, localiteness, administrative support in the

context of the school innovativeness. These aspects have also been studied by the investigator as components of the tool of 'Innovative Proneness Scale'. The aspect of Organisational Climate and leadership behaviour are also common to both the studies. Furushottam (1979) is, therefore, important for the investigator.

Gupta (1980) studied the job satisfaction at three levels of teaching and concluded for the primary and secondary school teachers as : (1) attitude towards teaching as a career is significantly related to the job satisfaction, (2) marital status, age and teaching experience have no significant effect on the level of job satisfaction, (3) 8 independent variables are significantly related to the prediction of job satisfaction. These are attitude towards teaching as a career, personality maturity and needs of achievement, autonomy, endurance, dominance, abasement, and succourance. For primary teachers the need of exhibition substituted the need of dominance.

Anand (1980) studied the relationship of teachers values and their job satisfaction and investigated the teachers (a) profile of values, (b) job satisfaction, (c) relationship between the two, and (d) determinants of job satisfaction. The tool used was job satisfaction scale of Anand (1972)'. He found that 44% teachers enjoy job satisfaction and in that the ratio of women is higher than

the men teachers. Also, political values present in teachers block their satisfaction upto the extent of 43% and in the presence of these values only 6% and 8% job satisfaction of teachers is predicted. In addition, sex accounts for the prediction of 2% job satisfaction.

Trivedi (1981) investigated the dimensions and patterns of the Principals, leadership behaviour the innovation proneness and the organisational climate of the higher secondary schools of Saurashtra. His approach was different from the studies of Patel (1973), Shelat (1974), and Darji (1975). He studied the leadership behaviour in terms of its two dimensions (viz. initiating structure and consideration) and four patterns (viz. type, situation, trait and behaviour) and in relation to the innovation proneness of the school, personality traits of the Principals and organisational climate. Leadership behaviour and innovation proneness were also studied in relation to some school variables (like districts, type, stream, area etc.) and some personal variables of the Principals (like sex, academic and professional qualification, mobility, experience, in-service education, professional reading habits, and professional satisfaction.) The tools used were the L B D Q and O C D Q both developed by Halpin and the Innovative Proneness Scale (IPS) developed by Panchal (1977) and also used by Patel (1979). Trivedi also used Thurston Temperament Schedule (TTS) to measure the personality traits.

Trivedi's findings were : (1) There are 46% HH, 13% HL, 7% LH, and 34% LL school patterns. (2) Open climate schools are 21%, Autonomous climate 13%, controlled climate 18%, Familiar climate 4%, Paternal climate 13%, and closed climate 31%. (3) There is high and significant relation between initiating structure and consideration dimensions of leadership behaviour. (4) The highest percentage of HH pattern leadership was scored by the Principals of Amreli District, Girls School general stream school, open climate, M.A. degree holders, T.D. degree holders, high active trait, high impulsive trait, high dominant trait, average stable trait, high social trait, average reflective trait, low teaching-learning process, high internal school organisation, staff development, high school community relationship, high attitude to innovation, high administrative support, high staff norms, average system norms, average complexity, high compatibility, average riskness high localiteness, average cosmopolitaness, high situational and innovative characteristics as a whole, high traditionalism, high progressivism, high dogmatism, high venturesomeness, average conservatism, low change proneness and high change related values as a whole. (5) The highest percentage of LL pattern was scored by the Principal of Surendranagar District, of Boys School, closed climate schools, M.Sc. degree holder, Diploma holder, low active trait, low impulsive trait, average dominant trait, low stable trait, average social trait and low reflective trait. (6) Highest percentages of HH patterns as well as of LL pattern were shown by the Principals of rural area

schools, females, with no reading habit, with no job satisfaction, and of average trait. (7) Higher percentage of HH pattern was scored by the Principals with no mobility, and with some in-service education. (8) The HH pattern Principals got highest percentage on personality traits as a whole and the Principals of HL pattern get lowest percentage. (9) Highest mean score was obtained on HH pattern, by the Principals of vigorous, impulsive dominant, sociable, active and reflective traits. (10) The highest mean score was obtained on HL Pattern by the active trait Principals. (11) The highest mean score on LH pattern was obtained by the Stable trait Principals. (12) The most innovative were Rajkot district, girls School, HH pattern leaders, open climate, M.Sc. degree holders, and M.Ed. degree holders. (13) The poor innovative were Jamnagar district, boys type, LH pattern closed climate, B.Sc. degree holders, B.Ed. degree holders. (14) More innovative were the general stream, urban area, with mobility, some in-service education, female Principals with some professional reading habit and with no job satisfaction than others. (15) The highest innovative proneness was on high active, vigorous, impulsive, dominant, stable, sociable, and reflective traits Principals. (16) High innovative proneness was on individualisation, and curriculum organisation. (17) Different correlation was shown on the initiating structure as well as on consideration by the components of Organizational Climate and the

Innovative Proneness Scale. (18) Reliability co-efficient of the three sections of the I.P.S. was 0.90, 0.91 and 0.69, respectively, and of the scale as a whole 0.80. (19) The personality traits of the Principals as well as of the schools showed different correlation on six climate types. (20) The components of I.P.S. showed different correlation on different climate type, and leadership behaviour patterns. (21) The personality traits of Principals showed different correlation on the initiating structure and consideration. (22) Different correlation on the leadership behaviour pattern was shown by the personality traits of Principals, personality traits of school and the components of organizational climate.

The findings of Trivedi, in a nut shell indicated that the Principals who are perceived high on both the dimensions of leadership behaviour are found to be effective in building up the climate towards openness and high innovativeness. Also, high innovative school Principals acquired high score on personality traits. The school personality traits are also very crucial in formulating effective leadership and high innovativeness. Principals manifesting ineffectiveness are found mostly on closed climate, low personality traits and poor innovativeness.

The study of Trivedi is of great significance for the investigator. Three of the four tools and all the

personnel variables used by Trivedi have also been used in the present study. Both studies also have the aspect of leadership behaviour of the Principals.

Anand and Schal (1981) examined the relationship between some personal traits, job satisfaction and job performance of researchers, Teachers and extension workers of the National Dairy Research Institute at its branches at Bangalore, Bombay and Kalyan. The major findings were :

- (1) Senior scientists were not necessarily the active scientist. The younger group mostly did the research
- (2) Age, educational level and pay scales were significantly related with publication performance.
- (3) Experience had negative effect on publications
- (4) Job satisfaction and work performance were positively related.

Reddy and Babjan (1981) examined whether married teachers were more satisfied with their jobs than the unmarried. It was found that being unmarried had a premium in this regard.

Indiresan(1981) in a cross-culture study of job satisfaction of Engineering teachers found that (1) Teachers show greater satisfaction with content needs than context need, (2) English teachers have a significant higher expressed job satisfaction compared to Indian teachers, (3) Indian teachers have greater job satisfaction and

involvement compared to the English Teachers, (4) Context job factors are more important in contributing to the job satisfaction of Indian teachers and content job factors for the English teachers.

Shukla and Shukla (1981) conducted a comparative study of job satisfaction among teachers and found among others that the Job satisfaction was lowest in case of Degree Teachers followed by the Intermediate, High School and Junior High School teachers. Thus, higher the level of teaching higher the level of job dissatisfaction. This finding is contrary to almost all previous findings with reasons left unexplained.

Khatoon and Verma (1982) studied the influence of personal factors on teachers' attitude towards their job and concluded that : (1) Majority of teachers like their job, (2) More women than men feel satisfied with their job and they also have greater degree of job satisfaction than men teachers, (3) Experience has a negative influence towards teaching, (4) Qualifications have no effect on the attitude.

Chopra (1982) studied the relationship of organizational climate, teachers job satisfaction and students achievement and concluded : (1) Open climate schools show the highest overall teachers job satisfaction followed by autonomous, familiar, controlled, closed and paternal climate schools.

(2) Job satisfaction of teachers in the open climate schools significantly differ from closed and paternal climate schools. (3) Only for 2 of the 15 areas of job satisfaction (viz. Supervisor and identification with the institution) significant differences are found among different climate types of schools. (4) Students achievement does not significantly differ in various climate types of school (5) Teachers job satisfaction and student achievement are not significantly related.

2.5 Important Conclusions

The review of related research work in this chapter leads to some important conclusions in the field of educational innovation. Even though all of them are not directly related to the problem under study, these conclusions are of value as they are of significant help in planning future studies. These conclusions are as follows :-

- (1) The researches in the field of innovation started in other disciplines first. The field of education did not take the lead. The pioneers were anthropology, sociology medicine and industry. Agricultural education was the first branch of education to undertake research on innovations.
- (2) In the field of education the U.S.A. took the initiative and in later part of sixties this trend

found the momentum. In India, the pioneer institutions are the Centre of Advanced Study in Education at the Maharaja Sayajirao University, Baroda, and the MB Patel College of Education, Sardar Patel University, Vallabh Vidyanagar, Gujrat.

- (3) In India the research on educational innovations and change process has been inspired by the recommendations of Mudaliar Commission (1952-53) and the Kothari Education Commission (1964-65). It was followed by the innovative activities undertaken by the A.I.C.S.E., N.C.E.R.T., C.A.S.E, the State Institutes of Education, and the State Councils of Educational Research and Training.
- (4) Most studies on innovations and change have first selected the innovative ideas for research to float and institutionalise them.
- (5) Researchers have tried to identify the roots of innovations with seminars, workshops, Orientation courses etc. organised by different agencies.
- (6) Researches have revealed that the fate of innovations to a great extent depends upon the leadership behaviour of the school Principals, Organisational Climate of the School and teacher morale.
- (7) Most investigators have studied the institutions of the forces working therein which favour or retard the innovations. Very few studies have been done on teachers

who are the prime-movers and the ultimate users of all the educational innovations.

- (8) Leadership behaviour of the leader is an important aspect of the administration. It plays a vital role in any work situation and goal achievement.
- (9) Conducive organisational climate is necessary in the schools for motivating the innovators, be they the Principal or teachers.
- (10) Sex of the Principals does not affect the patterns of leadership behaviour and level of effectiveness.
- (11) Male and female Principals perceive their own leadership behaviour as being significantly different on the consideration dimension.
- (12) Teachers perceive male as well as female Principals exercising a higher degree of production emphasis.
- (13) The percentage of Principals manifesting the HH pattern of leadership behaviour is the highest and the LL pattern occupies the second position followed by the HL and LH pattern.
- (14) In open climate schools all the Principals manifest the HH pattern of leadership behaviour whereas most of the schools having Principals manifesting the LL pattern fall in the closed climate type.
- (15) In rural areas the Principals of schools are fairly distributed over the HH and the LL pattern whereas about

- 50% of the urban schools have Principals manifesting the HH pattern of leadership behaviour.
- (16) There is a positively high correlation between initiating structure and consideration.
- (17) The Principals of all the Boys schools manifest the HH pattern of leadership behaviour.
- (18) Job satisfaction is important for teachers as well as Principals.
- (19) There is a wide scope of research on educational innovations in India. Several virgin areas in this field are yet to be explored. Job satisfaction of teachers, their job context and content offer very good opportunities for research. Nature of professional training is another field left open. Relative studies of state run, private and model schools run by Kendriya Vidyalaya Sangathan etc. can reveal several useful conclusions for future. A recent movement has started to rehabilitate the physically handicapped persons. The method and nature of education for them offers a wide scope of research in future. The recently introduced new system of education is yet another opening for research.

2.6 Relevance to the present Research

The review of works in this Chapter reveals that only a few studies have been undertaken in India with regard to the innovative proneness of school teachers. Even these studies have not covered the aspect of the job satisfaction.

Further, samples of studies did not have all India Coverage. Selection of schools and teachers was from a limited area. The aspect of medium of instruction was also left out of these studies.

Agrawal (1974) adopted Miller's Inventory, constructed and tested abroad, for measuring the innovative proneness of teachers. In this study the teachers were covered by a broader tool. The studies on personality aspects of Superintendents, Principals and Teachers especially the cosmopolitaness, radicalism, traditionalism, attitude towards innovations, exposure to wider environment, encourage to undertake comprehensive studies in the field of education.

Amjanuyulu (1968) has for the first time investigated the aspect of job satisfaction of teachers. It was however from the psychological angle.

Panchal (1977) has done a pioneering work in constructing and testing the tool for measuring the innovative proneness of the teacher educators in India. With the back-ground of this study, Patel (1979) constructed and tested a similar tool for measuring the innovative proneness of school teachers. In these studies the sample was taken from within the Gujrat State only and the scope of the study was very limited. Trivedi (1981) mainly investigated the leadership behaviour of the Principals of Secondary Schools of Saurashtra and related it with the innovation proneness and organizational climate of the schools. These studies have direct bearing on

the problem under investigation.

The relationship of the innovative proneness of teachers with the variables of Job Satisfaction of teachers, has not been explored yet. The relationship of innovative proneness with the Organizational Climate of the school and the leadership behaviour of the Principals as perceived by the teachers has also not been exhaustively explored yet. No study of secondary school teachers has so far been conducted on all India basis. The present research has been designed to cover these gaps to a considerable extent. A tool "Job Satisfaction Inventory" has been constructed for ascertaining the job satisfaction level of teachers and was used along with the tools of IPS, OCDQ and LBDQ. The teachers of Kendriya Vidyalaya were included to have all India representation on the sample. Even from the schools being run in Gujrat State, the selection of sample was reasonably made to represent different medium of instructions for wider coverage.

2.7 Peculiarities of Present Research

The peculiarities of the present research are as follows :

- (a) The variable of job satisfaction considered as a correlate of innovative proneness of teachers which has been spared by the past investigators so far particularly in Indian conditions.
- (b) The Gujrat schools have been studied as per the medium of instructions used for imparting lessons. For this

purpose English, Hindi, Gujrati, Sindhi, Marathi and Urdu mediums were selected. Such schools constitute nearly 53 percent of the sample. These were in addition to the Boys and Girls Schools of Gujrat State.

- (c) The Kendriya Viçyalaye being run by a Central Organisation and spread all over the country have been studied for the first time. They cover nearly 26 percent of the sample. They have been studied as KVs in Gujrat and the KVs outside Gujrat.
- (d) The leadership behaviour of the Principals have been studied as perceived by the teachers. Principals have also been taken as a teacher for this purpose and no separate tool was administered on them.
- (e) The Innovative Proneness Scale developed by Patel (1979) has been used for the first time for collecting data from outside Gujrat State also.
- (f) The tool of 'Job Satisfaction Inventory' has been constructed by the investigator.

2.8 Conclusion

In this Chapter several important studies on educational innovation conducted abroad as well as in India have been reviewed. The main aim of the earlier studies was to find out the extent to which the institutional conditions helped or hindered the adoption of specified

innovations. During seventies the trend of the research shifted to the personal variables of the school Principals, superintendents and in some cases to the teachers. Efforts were then made to identify the personal variables which lead to successful adoption, distortion or rejection of the specified innovations. In some studies innovation dissonance was also investigated to establish reasons for attitude behaviour discrepancy with reference to innovations.

As a result of intensive researches reviewed in this Chapter some old concepts and method were redefined and innovation is no more regarded as an accidental or isolated event. It is now considered to be an end by itself. In the studies undertaken at the CASE, Baroda, the school is considered to be a system in three prong activities of task achievement, internal integration and maintenance, and growth and adoption. The innovation is viewed as an attempt of the school to grow by adopting the changing circumstance for developing capacity to self renew, self-evaluate and solve creative problems. These are the necessary aspects of dynamism. This way the emphasis has shifted from the study of one-shot innovation to the complex processes involved in it.

Innovative-proneness depends upon the specific characteristics of the teachers and Principals. Leadership is related to the attitude and temperament of the leader. Job

Satisfaction is necessary for teachers also to put in their best in teaching work. Leadership behaviour and organisational climate are inter-related subjects which together decide the innovation proneness found in an institution. The study of these factors bring out a crucial understanding of the inner life of the schools and provides better clues for the interpretation of school life. The review of previous related researches has provided a useful background for planning the present study which is a step ahead of the previous attempts in the field of educational innovation.

The aspect of job satisfaction of teacher is almost new. Its relationship with innovative proneness has not been investigated yet. The study of leadership behaviour of Principals and the organisational climate of the schools is not new but their relationship with teacher innovative proneness has not been fully investigated yet. The present investigation being the first of its kind in India aims to study the relationship of innovative proneness with all these factors. The tool of Job Satisfaction Inventory has been constructed by the Investigator.

In this Chapter relevant literature and the background of education in India was discussed. Important conclusions from these researches were also listed and peculiarities of the present research highlighted. In the next chapter methodology and procedure of the present research is discussed.
