CHAPTER - I

THEORETICAL REFERENCE FRAME

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1. Overview :

Educationists will know only too well that the change resulting from innovative practices is difficult and unsettling for staff and students alike and that there tends to be a considerable time-lag between the modifications in the society at large and the innovations introduced into the educational scene. Educators and teachers, by and large, belong to a conservative group and are inclined to hasten slowly. There is hesitation to upset the conventional ideas concerning both educational content and method lest children feel lost and insecure, lest teaching staff lose their own way in the morass of possible curriculum change and novel experiments and lest the more reactionary elements in our society accuse them of undermining our social institutions and the moral foundations of youth. But there is also as fear of too violent a change in society and in the education of the young may result in their not having it at all.

2. Innovation :

Something that is quite misleading about the term 'Innovation' exists especially when used even in an educated community if it is uninitiated. To quite a few the word tends to connote an unqualified improvement on method, matter or materials already used. But an innovation, whether in education or in any other sphere is merely something introduced which is new or different. When we carry the definition a little further and make an attempt to distinguish between innovations which are nothing more than mere novelties and innovations which are real improvements, we become involved in value-judgements based upon certain criteria what in fact constitute an improvement in education. Can one always be certain whether the cause of the improvement observed was due to innovative practice under study? Or was it contingent upon one of the factors for improvement? Or was the whole process merely co-incidental and in no way causative?

2.1 Evaluation of Innovation :

(a) In terms of Objectives : The first point is that the innovations can be assessed only in relation to the aims and objectives of any particular system of education. Right judgement of an innovation in vacuo can't be made, for, a successful innovation in one system may prove to be unsuccessful if introduced into another. Those which have relevance in one school and are successful to fit in with general pattern of the aims, objectives and social milieu of that school may not be relevance or transferability to any other school because of differences in the objectives both general as well as

educational sometimes. Even successful innovations are not intrinsically good but depend on a multiplicity and variety of contextual factors and relations.

(b) In terms of learning : The second important point is that innovations are usually concerned with increased learning, with broad attempts to improve the quality of teaching and its professionalisation. In increased professionalisation of teachers, innovations have included even the extension of training periods sometimes.

(c) In terms of "change" in the personnel : The third point concerning innovation is that they involve a corresponding change in the activities and attitudes of school personnel. Changes and innovations affect people and their morale including the level of proneness to further change. In any attempt to understand innovation in education we shall inevitably find ourselves analysing human personality and interpersonal relationships.

(d) In terms of achievement level : In the words of M.Richland (1965), "Innovation is .... the creative selection, organisation and utilisation of human and material sources in new and unique ways which will result in the attainment of higher level of achievement for the defined goals and objectives."

3. Innovation and Change :

But innovation in our present context may not or does not necessarily mean something which is entirely novel. It connotes rather something which is "fresh" and "new" from the point of view of those people using it. In his 'Technology of change', D.A.Schon (1959) is of the View that an act is innovative only if it adds to

the sum of known inventions otherwise merely borrowing or a wider diffusion or transference of the original act.

In education we are however less concerned with the actual invention of devices and methods than with their use and dissemination throughout the schools. While it is true that most of the local changes are almost adaptations of something already in practice in the other schools in the neighbourhood. We are more concerned with the process of adoption along with planning.

The distinction which Miles, M.B.(1966)m makes between 'innovation' and 'change' is that innovation is clearly more planned, deliberate, routinised and willed than change which is more spontaneous. Westly.W. (1958) in a report on innovation clarifies two points viz: (i) Innovation is concerned with devising the most effective combination of means to produce specially conceived ends and (ii) Change in education can no longer be left to casual initiatives by separate groups and purposes because it is more disorganised and can be disruptive.

Eisenstadt.N. (1968) says that change in education depends to a very large extent upon the process of institutionalisation. But generally education is therefore a long-term process. At the sametime it is true that certain innovations, in the words of Huberman (1963) are 'one-shot operations' in order to get a particular change installed. Deliberate changes of this nature, however, take place somewhat infrequently. There is a sound reason for this, viz: (i) Most organisations have a preference for stability and rarely have mechanisms for change arising from within. More often, the

educational authorities try experimentally in a competetive manner just to demonstrate that they are "with it". Majority of such experiments are dropped in the middle.

3.1 Types and Degrees of Change :

(a) Unencumbered : Some innovations require simply the adoption by an individual member of staff within the limits of his own classroom. He is free to use any new aid or method himself in his class and therefore he is "unemcumbered" in his acceptance of this type of innovation.

(b) Encumbered : If on the other hand if the innovation is in the form of a project involving more people, the innovating teacher is at the mercy and cooperationo of others. Thus the involved innovative capacity is 'encumbered' by a variety of contingencies related more to human relationships. The terms are relative.

Generally speaking, things and information are more easily handled and introduced than are changes in human attitudes, practice and values. This concept is illustrated by Havelock.R.G. in his important study on 'planning for innovation', as follows:

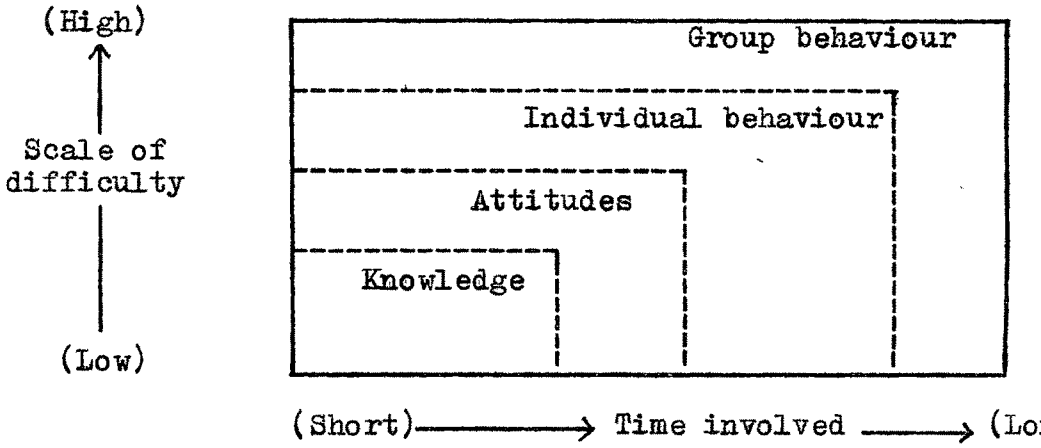


FIG. 2 : Relative time and difficulty in making various changes.

3.2 The Six Types of Changes :

Havelock.R.G. suggests that there may be six types of change required for adoption. They are viz:

(a) Substitution : Depending on the need, this may range from replacement of one teacher by another to the substitution of anything like a hardware of software. So that the substitution of what appears to be a figure-head may well prove to be the substitution of even new organisations.

(b) Alteration : Miles.M.B. (1966) has collected a big compendium of studies to exemplify the effects of this particular type of change. Here he considered alterations in existing structures instead of introducing totally new for instance using 16 mm silent film in the place of 8 mm film.

(c) Addition : This category is just adding without changing old elements for instance using a diagnostic test to identify the pupils' problems without changing the style of teaching or such other factors.

(d) Restructuring : A fourth category suggested by Havelock was restructuring which may be a question of the material rearrangement of work-space so that teaching to smaller groups is made possible. Or it may be a thorough revision of interpersonal relations within the school by the development of an increased number of staff seminar groups to discuss and ventilate educational policies.

(e) Elimination of old behavioural patterns : An example for this type could be something like total elimination of a lecture method in the class and resorting to small group seminar method. This might

appear as over simplication of the situation but what is so far learnt about inter-personal relationship and group dynamics does not suggest whether the group operation could eliminate mutual distrust or increase it. But it certainly does pose certain problems of personality integration leading to personality therapy.

(f) Reinforcing of old behaviour : Most of the refresher courses for teachers are basically of this type. In the main, such courses possess sufficient basic 'Known' material to reinforce what the teacher feels he already knows.

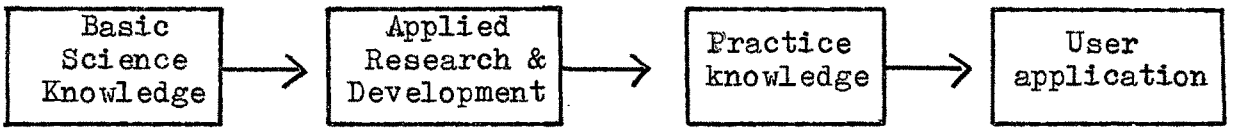
3.3 Models of Change : Overview of three process models.

The three basic models of change process models are as follows:

1. the research and development (R and D) model.
2. the social interaction model.
3. the problem-solving model.

(i) The R and D model is portrayed by Havelock. This is a rational and logical approach to the problem. It appears a bit over simple because many changes and innovations do not occur as the end product of a careful process of planning nor of course does research of necessity precede many forms of innovations. In general innovators have experimented with something and then, having tried it out have revised and adopted it. But it would be rationalisation of events to attempt to explain all innovations in terms of theory-into-practice.

R and D model to show the progress from basic Research to Application : (after Hagelock).



(ii) The second process model for discussion is the "Social-interaction" model. This follows a sequence where a new idea is pursued by one school after having carefully observed its use by another. Firstly there is the "Awareness" of the idea. Secondary there must be sufficient interest to search for further information. There must then follow some evaluation of the proposed innovation.

(iii) The third process model is the "problem solving" model the solution of problems deriving from their adequate analysis. In this process there is emphasis upon the solution of problems through internal restructuring where the receiver is directly involved in the solutions. Frequent use is made of a 'change agent' as an outside consultant who is in the form of a participant-observer from within the system. In this particular model there is concern with attitude change, readjustment of interpersonal relation and methods of communication.

Kurt Lewin in his book "Group decision and social change" ascribes three phases for the operation of this problem-solving model. Phase I : "Unfreezing" which is realisation of the need for change, Phase II : Period of "Moving" which involves a variety of activities involved in implementing the change and finally Phase III : 'Freezing' which is fixing of the new forms of behaviour and activity in the life of the group.

Thus if one views the whole perspective of change in terms of the change agent or consultant coming into the organisation or client

system he could observe the following:

(a) the development of the need for change.

(b) the establishment of a change relationship between agent and client.

(c) the clarification and diagnosis of the client system's problems.

(d) Examining the alternate routes or goals and establishing the required action.

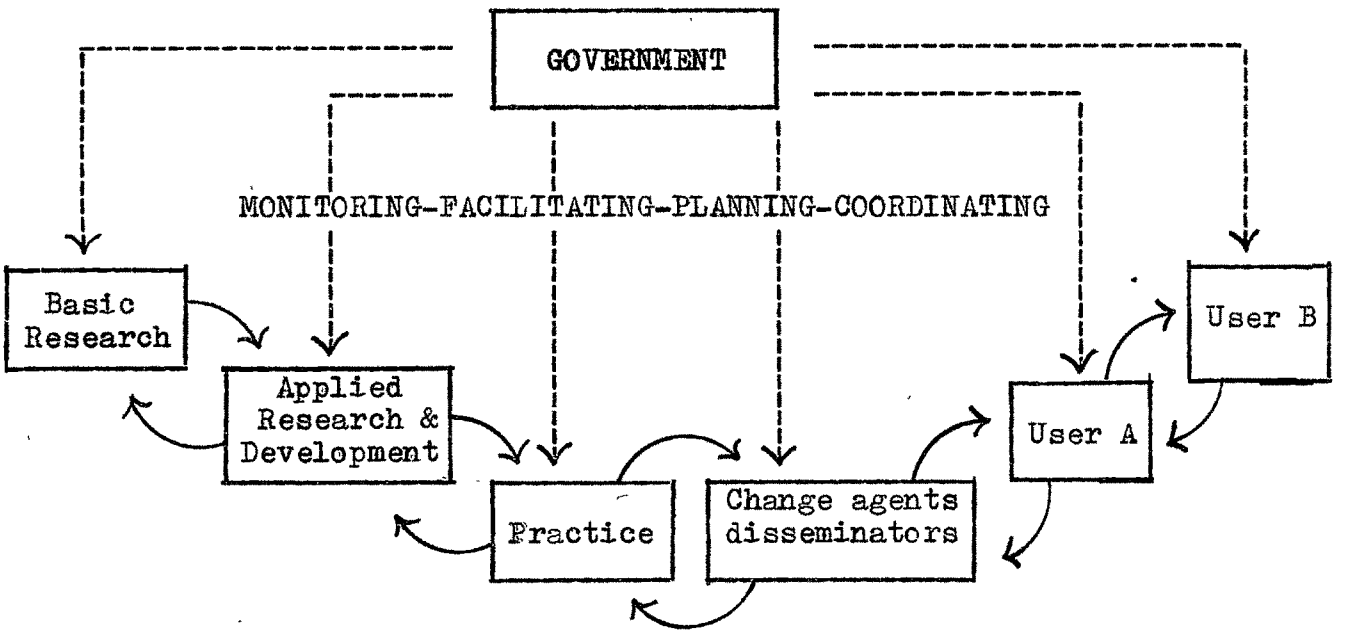


FIGURE showing the interaction of agents involved in change in a social system (after Morrish (1976)).

The following figure is a modified from of an illustration by Havelock.R.G. showing the way in which the three models of change operate. This modified form is from Morrish (1976), p.112.

TYPICAL STAGES IN MODELS OF CHANGE : (after Morrish)

R and D Model	Social Interaction Model	Problem solving model
1. Invention or discovery of innovation	1. Awareness of innovation	1. Translation of need to problem
2. Development (working out problems)	2. Interest in problem	2. Diagnosis of problem
3. Production and packaging	3. Evaluation of its appropriateness	3. Search and retrieval of information
4. Dissemination to mass audience	4. Trial	4. Adaptation of innovation
	5. Adoption for permanent use	5. Trial
		6. Evaluation of trial in terms of need satisfaction

The distinguishing features of the process models :

(a) Stress : These three models differ in relation to the source of initiative in the change process. The R and D model stresses the 'Developer', the social interaction model stresses the 'Communicator' while the problem solving model emphasises the role of the 'Receiver'.

(b) Planning : The R and D model is closely planned, while the problem solving model is highly spontaneous and natural.

(c) Personnel : The R and D model studies in particular the activities of the 'Resource person' or system whereas the social interaction model focusses on the 'user person' and the problem solving model on the 'Change agent' in interaction with the user.

(d) Dissemination media : Finally Havelock R.G. points out that the dissemination strategies in each model are different. There are one-way media for information and training in the R and D model, two-way involvement between sender and receiver in the problem-solving model and variety of transmission media in the social-interaction model.

In practice all the three process-models could be identified in various institutions of education depending up on the institutions structure and organisation. Once the process model is identified the other factors could be easily described in relation to the structure of the institution.

3.4 Model of 'Linkage' in the process of Educational Change :

The actual agents involved in any educational change are (a) the individual adopter (b) the group as key parameter and (c) the institution and its cultural framework. All of these three units of analysis are brought into play in any given educational innovation.

Any analysis of the process of change involves the study of a wide and complex range of 'Variables' which operate in a highly integrated system.

The general variables are (i) individual attitudes and perceptions (ii) group process norms (iii) institutional and organisational structures (iv) community pressures and pressures from authority (v) cultural and sub-cultural codes of the society.

The interactions which take place on different levels pointed above and the effects produced by any given innovation on the various

agents are represented through the following paradigm by Morrish (1976).

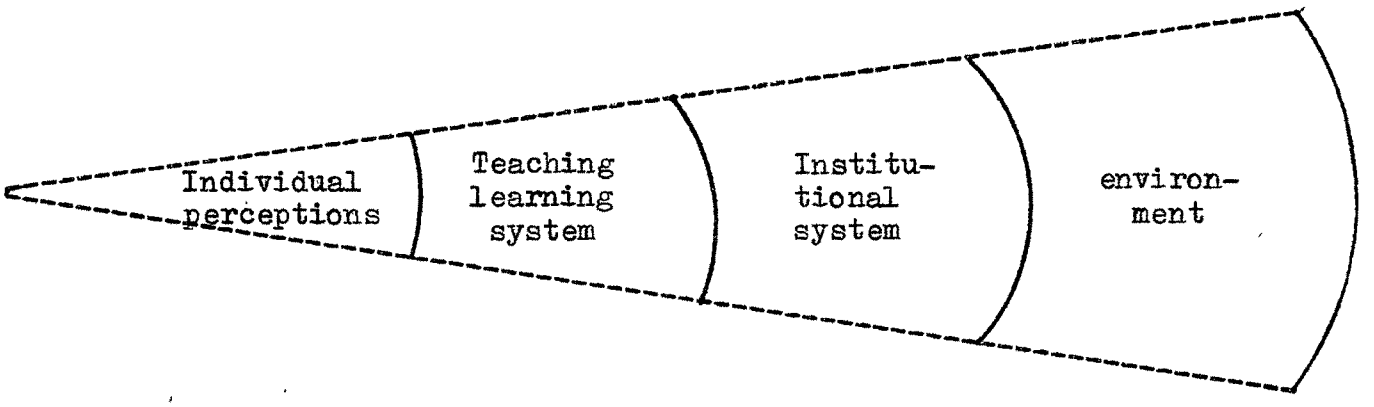


Fig. : Showing 'Linkage' in the process of Educational Change.

4. Factors affecting the Process of Change : (or causes for the slow change of schools)

Some of the behavioural scientists who have applied systems theory to educational institutions, claim that schools are by nature stable or homeostatic and are therefore unable to innovate. According to their argument, there are certain genotypical and phenotypical characteristics that inhibit change.

Havelock.R.G. (1974) divides these into THREE major type of FACTORS. They are :

(a) 'Input' factors which inhibit change entering the school system.

(b) 'Output' factors which prevent the very genesis of change from within.

(c) 'Throughput' factors which limit the spread of new ideas and practices through the school system.

He further classifies these three factors into its kinds viz:

(A) Input Factors :

(a) Resistance to change from the environment. (b) Incompetence of outside agents. (c) Overcentralisation (d) Teacher defensiveness (e) Absence of change agent of 'Linking-pin'. (f) Incomplete linkage between theory and practice. (g) Underdeveloped scientific base. (h) Conservatism. (i) Professional invisibility.

(B) Output Factors :

(a) Confused goals. (b) No rewards for innovating (c) Uniformity of approach (d) School is a monopoly. (e) Low knowledge component-low investment in R and D. (f) Low technological and financial investment. (g) Difficulty in diagnosing weaknesses. (h) Product measurement problems (i) Focus on present commitments : Accountability (j) Low personal development investment. (k) Lack of enterpreneurial models. (l) Passivity.

(C) Throughput Factors :

(a) Separation of members and units. (b) Heirarchy and differential units. (c) Lack of procedure and training for change.

So far, in general and particular terms, some of the reasons why schools change so slowly were discussed under three heads viz: input, output and throughput factors. It might be useful at this point to list some of the factors that are conducive to the successful implementation of ideas of change. Nicholls, H. in his 'consideration for creative teaching' gives the following conductive factors:

Factors conducive to successful implementation of innovation :

1. Teachers' being favourably disposed towards innovation.
2. Teachers' clear understanding of innovation.
3. Innovation being within Teacher-capabilities.
4. Provision for necessary resources for innovation.
5. Making necessary administrative and organisational arrangement.
6. Ability of carrying out the correct diagnosis of the pupils.
7. Channels of communication being used for :
   (a) giving information (b) seeking co-operation (c) resolving fears (d) changing attitudes.
8. Adequate time being given for the development of factors 1, 2, 3, 6, and 7.

4.1 Diffusion Rate of Innovations :

In his 'Future shock', Toffler. A. (1970) points out that there has been long gap of time between conception of an idea and its application.

In educational systems the rates of implementation of ideas and innovation lag still behind those of the medical, agricultural and industrial systems. Miles. M.B. (1966) in his book 'Innovation in Education' delineates three reaons for this : (i) Absence of any body of valid scientific research findings in education (ii) Lack of change agents to promote new educational ideas and (iii) Lack of adequate economic incentives for adoption of innovation.

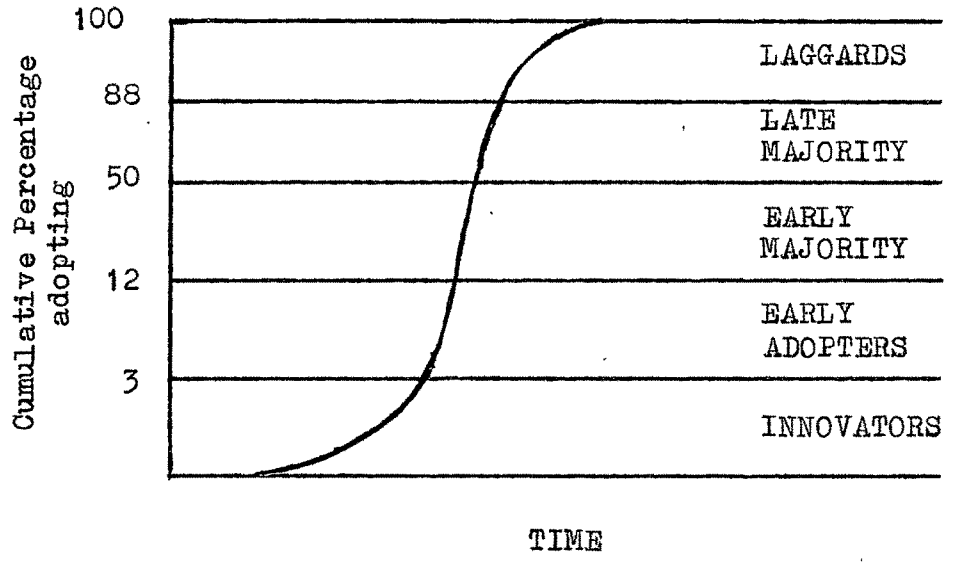
Mort.P. claims that any change in the American School System, which is considered to be dynamic, takes 'an extravagently long time' and that it follows a fairly predictable pattern. He says that there may be a time lapse as great as fifty years between the time

in which there occurs some recognition of a need and the first introduction of a way of meeting such a need which may eventually spread through the whole system. He has given a list of examples taken from real situations. Mort's studies were first made in 1930s. But now there is a slightly accelerated tendency reports Coombs.P.H.

4.2 Adopter Categories :

The adoption process occurs in stages. There is a very early stage when two or three percent of innovators decide to start innovating, followed by the second stage in which the early adopters about five percent in size get involved because of their observation of others' practice with no disastrous results. Then there occurs a middle stage in which the majority about seventy five percent, adopts comparatively quickly influenced primarily by the innovators themselves. This is followed by a late stage when the small residue of resisters or laggards at last succumbs. But still a small group of resisters will never given in.

ADOPTION AS A CUMULATIVE CURVE



In most educational changes it is a matter concerned with a group or atleast with an accumulation of adoptions by individuals. Individuals are influenced by groups with number of adopters increasing in proportion. However the adopter system affects each adopter differently for the context, reference groups, perceptions and his group norms are different from the other. Therefore adopting behaviour and the adoption periods differ correspondingly.

4.3 Process Variables :

It is important to identify the factors or variables that operate when a given innovation is introduced in any educational system.

Clearly our understanding of the process-models of change and of strategies which eventually will amerge, all depend upon the interactions of factors which are : (i) inherent in the innovation itself, (ii) situational or connected with the school system and its personnel, and (iii) environmental.

There are many more factors associated with each one of the variables :

(A) Inherent or Intrinsic Variables :

(1) The proven quality of the innovation (2) Cost (3) Divisibility (4) Complexity (5) Communicability.

(B) Situational Variables :

(1) Structure of the instructional system (2) Leadership and Sponsorship (3) School environment (4) Group norms (5) Personal characteristics of adopters (6) Rewards and punishment.

(C) Environmental Variables :

(1) Innovation system congruence (2) Readiness.

A Paradigm of Variables Determining the Rate of Adoption :
(After Rogers.E.M.)

Variables determining the rate of adoption	Dependent variable to be explained
(a) Perceived attributes of innovation 1. Relative advantage 2. Compatability 3. Complexity 4. Trialability 5. Observability	Rate of Adoption of Innovations
(b) Type of innovation decision 1. Optional 2. Collective 3. Authority	
(c) Communication Channels (e.g. mass-media or Interpersonal)	
(d) Nature of the social system	
(e) Extent of change agents' promotion effort.	

4.4 Resistence :

Resistance to change is proportional to the amount of change required in the receiver system. Individuals tend to resist most strongly at the point where the pressures of change are greatest because they look at the change as a threat.

A resistance curve is a mirror image of the adoption curve. Havelock.R.G. (1974) has expressed the theme of resistance in a formula.

Innovation = Demand minus Resistance in which the factor of resistance, however great the demand may be, will inevitably limit the success of innovation. The laws of supply and demand in the world of education innovation do not follow any precisely determined pattern; and resistance to innovation is certainly not always amenable to any logical or rational analysis because of the large variety of known and unknown factors operating on the resistance. Watson.G. has set out a stage theory of resistance to typical innovations.

(A) Resistance in Personality :

There is obvious importance to locate the mainsprings of resistance to change and we shall therefore examine briefly three 'Taxonomies' found in the literature on the process of innovation.

(i) Watson. G.'s Texonomy of Resistance due to Personality Characteristics :

1. Homeostasis : Organic desire to maintain constancy of state.
2. Habit : Preference of the familiar to the unfamiliar.
3. Primacy : Lasting effect of the first impression - or the first learnt.
4. Selective Perception and Retention : Admitting only such new ideas as will fit into an established outlook.
5. Dependence : Leaning up on our peers and acceptance of similar ideas views and methods as theirs.
6. Superego : Tendency to maintain those orthodox standards absorbed in childhood from authoritarian adults.
7. Self distrust : Self doubting of ones own abilities to stop existing practices.
8. Insecurity and Regression : Faith in pursuance of fixed hopes and ambitions born out of prior practices and fear of identiniteness in the new practices.

(ii) Guskin. A.E.'s Taxonomy of "Individual Variables in Utilisation" :

1. Sense of competence and self-esteem : Lack of faith in self-competency and self-esteem and fear of failure.
2. Authoritarianism and dogmatism : Tendency of being dogmatic to accept without question the directives of dictatorial leaders and to rigidly reject any change emanating from outside sources.
3. Feelings of threat and fear : Tendency of preserve the self-image in terms of dogmatic consistency and self defence against all external threats to such qualities.
4. Self-fulfilling prophecies : One's early experiences of 'Success' or 'failure' setting up patterns for future behaviour and expectations.

(iii) Harvey.O.'s Taxonomy of "Conceptual Ssystems Approach".

1. Individual cognitive style congruence : Tendency of an individual to structure and restructure a given situation in order to make sense out of it in ways compatible with his own motives and subjective ends or purposes.
2. Concrete - Abstract level variability in self systems : Tendency towards extreme and more polarised evaluations such as black-white, good-bad and right-wrong.
3. High conventionality and ethnocentrism : The quality marked by structure-orientedness, low flexibility, high punitiveness and low diversity of activities.

(B) Resistance in Action :

Having analysed resistance in personality in some detail, two examples of resistance in action may be considered from the study of Rogers.E. and Eichholz.G, on an attitude survey of resistance to new educational media.

1. Rejection through ignorance :

   An unknown unfamiliar innovation perhaps due to its sheet complexity leading to rejection.

2. Rejection through default :

   Sheer negligence or ignoring the existence of new.

3. Rejection by maintaining the status quo:

   Tendency for perpetual repetition of the old methods and not accepting anything new for it was not used in the past.

4. Rejection through social mores :

   Overpowering tendency to fall in line with others.

5. Rejection through substitution :

   Justifying old practice as an equal substitute to the new idea/practice.

6. Rejection through fulfilment :

   The idea of already knowing and doing the 'best' to reject the new.

7. Rejection through experience :

   Feeling born out of failure of practicing new ideas due to perhaps unduly short trial periods to make any conclusive decision about the effectiveness of an innovation.

Rogers and Eichholz, have also presented a frame work for the identification of rejection responses which are tabulated below. Here a distinction is made between a 'real' and 'stated' reasons for rejection of innovation. The frame work is presented in four columns as form of rejection, cause of rejection, state of subject and anticipated rejection responses.

A FRAME WORK FOR THE IDENTIFICATION OF FORMS OF REJECTION

	Form of Rejection	Cause of Rejection	State of Subject	Rejection Responses
1.	Ignorance	Lack of dissemination	Uninformed	"The information is not easily available"
2.	Suspended judgement	Data not logically compelling	Doubtful	"I want to see how good it is before I try".
3.	Situational	Data not materially compelling	(a) comparing	"Other things are equally good".
			(b) defensive	"The school regulations will not permit it".
			(c) deprived	"It costs too much to use in time and/or money".
4.	Personal	Data not Psychologically compelling	(a) Anxious	"I don't know if I can operate equipment".
			(b) Guilty	"I know I should use them, but I don't have time".
			(c) Alienated	"These gadgets will never replace a teacher".
				"If we use these they might replace us".
5.	Experimental	Past or present trials	Convinced	"I tried them once and they proved to be absolutely no good".

Another study concerns seven contested innovations in the USA which revealed that opponents generally were of four types.

(a) Those who favoured the innovation but disagreed with the particular form if it should take.

(b) Those who created independent groups of their own in order to defeat the innovation.

(c) Those who were inspired or coerced into opposition by this second group.

(d) Those whose resistance was only incidential or situation but whose real interests lay elsewhere.

The main problem for the administrators and teachers is to distinguish between a change which really pose a threat to the security and stability of the community and one which is resisted simply because it is new and must at the beginning ineivtably feel alien.

4.5 Innovator Qualities :

Innovators are rarely popular people says Morrish, for their merchandise is concerned usually with the untried and they tend to be regarded as individuals who are opposed on principle to the present order of things.

In his compendium of case studies Miles.M.B. has described the innovative person as strong, benevolent, high in intelligence and verbal ability, less bound by local group norms, more individualistic and creative, revealing authenticity and enthusiasm when attempting to persuade others, frequently rebellious, alienated excessively idealistic and prone to resentment, resistance and defiance in the case of adversity and disillusionment.

Harvey.O. in his article on "Conceptual Systems and Attitude Change", has provided a clinical picture. The innovator features in his fourth conceptual system which is characterised by a considerable degree of abstractness. It is a much more complex system enriched and mediational with greater ability to move out of immediate situation for purposes of comparison and perspective. There is less absolutism and greater relativism more freedom to analyse problems and provide solution without any fear of punishment for deviations

from established 'truth' or social imperatives and sanctions. In addition to all these qualities and dimensions, this conceptual system reveals a high task-orientation, a strong desire to seek information, exploratory behaviour, considerable risk-taking and strong independence. On the "omnibus personality inventory" such persons would score high on the autonomy (Au) and religious orientation (RO). Clinically they may be described as liberal, non-anthoritarian, emancipated and generally open to new thoughts, ideas and experiences. Innovators are self-actualisers.

Katz.E. has categorised the innovator as one with a 'modern' orientation willing to take risks, has a belief in scientific knowledge, in the scientific approach and in objective, impersonal sources of information, has a sense of personal competence and faith in his own capacity to control the environment in a contrast to one with a 'traditionalist' orientation places more trust in friends and family opinions than in scientific evidence and is prone to fatalism and conservation.

Lippitt.R. in his discussion of the teacher as 'Innovator', seeker and sharer of new practices, notes that teachers are more inclined to be involved in the diffusion process of innovation if they feel that they have the authority to direct their own classroom life and are at the same time confident that they can do confidently.

Rogers, E.M. and Shoemaker in their book "Communication of Innovations" (1973) have presented a series of following generalisations that are concerned with innovators:

4.6 Certain generalisations concerning innovators :

(1) Innovators are generally young : Rogers feels that younger people are free from conditioning by traditional practices. However, Lippitt. R. finds educational innovators to be both young and old. In the opinion of Lippitt, young teachers are more potential 'innovators' while the older ones are potential 'adopters'.

(2) Innovators have relatively high social status : This applied to the education, prestige ratings and income of the innovators. Ross.D.H. from a number of studies on innovation, observes that wealth factor was the chief variable related to the adoption of innovations.

(3) Impersonal and Cosmopolite sources of information : These are important to innovators. They seek information from the mass media and other impersonal sources outside their immediate social environment.

(4) Innovators are cosmopolite : They tend to be wide travellers and to participate in matters beyond the parameters of their system. Ross found that teachers at the more innovative schools usually acquire new ideas from outside their own community.

(5) Innovators exercise opinion Leadership : As a result of their prior experience, innovators are in a position to influence the adoption decision of their peers.

(6) Innovators are likely to be viewed as deviants by their peers and by themselves : An innovator, says Schon, D.A. sees himself as a man of strong will, attracted to risk, set against the established order with great energy and capacity to invite and withstand disapproval.

5. Traits and Functions of Innovative Institutions :

The more innovative schools tend to monitor the teacher-pupil interaction more closely and attempt to modify them to serve their avowed instructional objectives more efficiently. In order to appreciate fully the importance of this monitoring role, one needs to look more closely at the structural characteristics that distinguish such innovative systems from those which more frequently resist or reject improvements.

Steiner. G.A. observes that creativity is more likely to flourish in new firms than in old, small firms engaged in cut-throat competition rather than in firms that have the market all to themselves.

Steiners description of a creative organisation is one that encourages (1) 'idea men' (2) has open channels of communication (3) is decentralised and diversified (4) encourages a variety of contacts with outside sources (5) employs heterogenous types of personnel (6) uses an objective and a fact-finding approach and (7) is willing to explore new ideas on their merit, regardless of the status of their originator.

In short, then, a creative or innovating organisation is a collection of creative persons who do not get in one another's way.

Mort. P. describes schools with 'high adaptability' were those in which the teaching personnel were (1) more highly trained and qualified and (2) more highly receptive to current educational ideas (3) where educational administrators provide active support for adoptations rather than remaining neutral (4) where the public's attitude favoured modern practices.

Mort has attempted to prove that the key dependent variables were (a) higher financial support (b) higher level of parental education and occupation

Hilfiker.L. while quoting the study of Marcum.R.L. (1968) who has used the "Organisational climate Description Questionnaire" to demonstrate that the innovative schools had "open" climates, higher expenditures, younger staff members, larger professional staff members who remained in the system for a shorter period of time.

Miles. M.B. (1969) examines a number of these characteristics, as well as others, in his ten dimensions of "Organisational health". In general, a healthy organisation has the capacity not only to survive its environment but also to continue to cope adequately over the long haul and to develop and extend its abilities for coping and for survival. In examining Mile's list it is found that these qualities have started to be measured only recently. Those ten qualities are related mainly to behaviour of individuals or small groups. The first three are related to "Organisational Aims", "task", "the Transmission of Messages" and the way in which "Decisions" are made; the next three refer to "Internal state of the Organisations" and the final dimensions deal with "Growth and Changefulness".

5.1 Organisational Aims, Tasks and Transmission of Messages :

(a) Goal focus : Goals are congruent with the demand of the environment and the members are clear about the goals of the organisation and their acceptability.

(2) Communication adequacy : Distortionfree communication horizontally and vertically and across the boundary of the system, adequacy of communication between teacher and pupil.

(3) Optimal power equalisation : In a healthy organisation, sub-ordinates can influence upwards and can see that their superiors do the same with their superiors. The units of the organisation stand in inter-dependent relationship to one another with less emphasis upon the ability of one unit to control the entire operation.

5.2 Internal State of the Organisations:

(1) Resource Utilisation : There is over all co-ordination with neither over loading nor idling, a close correspondence exists between their personal characteristics and the demands of the system. People have a sense of learning, growing and developing along with contributing to the institution.

(2) Cohesiveness : The members are attracted to the membership, they wish to stay with the organisation, want to be influenced by it and have influence on it. Lippit. R. also stresses on this point in his consideration of the teacher as innovator.

(3) Morale : The implied concept there is one of well being or satisfaction. Rogers. C. lists the components of the morale as follows: (1) psychological safety (2) trust (3) psychological freedom (4) atmosphere of openness as measured by good interpersonal relationships and norms seen by school personnel to exist in the system.

5.3 Growth and Changefulness :

(1) Innovativeness : A healthy system tends to invent new procedures, more toward new goals and become more differentiated over time.

(2) Autonomy : A healthy organisation is independent of the environment in the sense of doesn't possively respond to demands from outside nor rebelliously - The school system would not treat its responses to the community as determining its own behaviour,

(3) Adaptation : The dimension of adaptation is the concept of being realistic and effective in the contact with the organisations in the surroundings. Its ability to accomplish corrective change should be faster than the change cycle in the community.

(4) Problem-solving adequacy : The issue is not the presence or absence of the problems but the manner in which the person group or organisation copes with problems. In an effective system, problems are solved with minimal energy, they stay solved and the problem-solving mechanisms are never weakened but maintained and strenthened.

6. Theoretical Background of Planning and Executing Change
(The dynamics of Change)

Over-view of the process models :

There is so much of literature on innovation attempting to analyse changes that have already occured. Many of the changes are more unplanned ones. It is only from studies of such changes, models are abstracted of the way in which the process occured and strategies are further drawn up in order to demonstrate how such a process might,

in fact, have been accelerated.

These phases of change and its development are described differently according to the analyst concerned. Each model in turn, as it views the change process differently, implies a different strategy that the change might be effected more easily and more perfectly the next time round.

The literature on change outlines three different models to indicate the three chief types of the process of change.

R and D Model :

The first, the theory-into-practice model or 'Research and Development' (R and D) model, views the process as a rational sequence of phases, by which an innovation is invented or discovered, developed produced and disseminated to the consumer. The innovation is not analysed from the view-point of the consumer who is presumably passive; nor does research begin as a set of precise answers to specific human problems, but rather as a set of facts and theories which are then transformed into ideas for useful products and practices for development. The knowledge is finally mass-produced tested and explored before final phase.

This R and D model is distinctly American in its emphasis upon the basic research into applied knoledge. This is more applicable to the fields of science and engineering, more in the East and Latin European countries. The basic assumption of this model is that links exist between research and the practice worlds.

Social Interaction Model :

The second model is the social interaction model with emphasis on the aspect of DIFFUSION, the movement of ideas and messages from individual to individual and from system to system. This model is more applicable in the areas of agriculture and medicine. This model underlines the importance of interpersonal networks of information, of opinion-leadership, of personal contact and social integration. The general idea is that each member in the system will proceed through the awareness-adoption cycle by means of a process of social communication with his colleagues. Generally in the decentralised systems this strategy takes the form of convincing a teacher or even an administrator of the usefulness of a new practice or device and then of facilitating the process whereby colleagues may come into contact with the new practioner while he is using the innovation. In India the extension services departments of teacher training colleges start this kind of diffusion at refresher and inservice courses organised by them for the teachers.

Problem-solving Model :

This third model is built around the users of innovation on the assumption that the user has a definite need and that the need could be satisfied by that innovation. So the process is from a problem to the diagnosis of a need, then to trial and adoption. Very often an external change agent is required to counsel individuals upon possible solutions and the strategies for implementation. But the emphasis is upon client-centred collaboration rather than upon manipulation from without. Though essentially scandinavian in origin, much of this type could be seen in vogue in India, the U.S.A. and

the United Kingdom also.

To summarise, of the three models, the second and third one are more related to Indian situation. It could be seen that each of the three systems lays its stress on different aspects:

Model	Stress on
1. R and D	1. Developer
2. Social Interaction	2. Communicator
3. Problem-solving	3. Role of receiver

6.1 Overview of Strategies of Change :

In operational terms, a strategy is a set of policies which underly specific tactics or actions that are considered useful in order to bring about the permanent installation of a particular innovation. Such a set of policies would have to take into account the innovation itself, the whole process of change, the characteristics of the target individuals and groups, and the nature of the system which will adopt the operation of innovation.

In spite of the fact that many strategies are available, experience shows that certain sequences and combinations are more effective than others and it is necessary to meet certain preconditions if any progress is to be made.

Watson. G. argues in favour of structural approaches to achieve best results. In schools effective change sequences involve structures

first, altered interaction processes second and attitudes last. He lists five 'preconditions' for any successful attempt at institutional change : (1) Participants must feel that the project is their own. (2) The project to be fully supported by the senior officials of the system (3) The project should be in accord with the ideals and values of the participants. (4) The participants should experience support, trust, acceptance and confidence in their relation with each other. (5) The participants must feel that their autonomy and security are not in any way threatened.

Guba.E.G.'s investigation provides the following "typology of strategies" which are dependent upon the nature of the adopter. Guba's list, in effect, is a collection of different types of motivation and intimidation.

Guba's typology of strategies :

1.	Value Strategy	:	Appeal to be made in terms of value priorities, for instance, on behalf of 'What is best for children?'
2.	Rational Strategy	:	On the basis of logic and feasibility.
3.	Didactic strategy	:	Willingness even without training.
4.	Psychological Strategy	:	Need based.
5.	Economic Strategy	:	Resource incentives.
6.	Authority Strategy	:	Compulsion by orders from above.

Guba relates each of the above strategies to six diffusion techniques viz: (i) telling (ii) showing (iii) helping (iv) involving (v) training (vi) intervening.

Morrish. I. (1966) depicts the link between the techniques of "Intervention" and the various phases of "Change process" as follows:

Relationship between Change Agent activities and Adopter Activities :

Change-Agent Activities	Adopter Activities
Promote	Awareness
Inform, Tell	Interest Information seeking
Demonstrate, show	Evaluation
Train	Trial, test
Help	Installation
Service	Adoption
Nurture	Institutionalisation Integration

Chin. R. and Benne. K.D. have reorganised and regrouped these categories into basic types. These revised clusters correspond to the three process models already outlined. They can be referred more specifically to different kinds of ministerial policy making traditions:

1. Empirical-rational approach : Appeal must be based on the logic and verifiable goodness in the innovation.

2. Nurmative-re-educative approach : Appeal to the active and willing adopter to improve his probmel-solving potential to bring self-clarity leading to desirable change.

3. Power-coercive approach : Employing political and economic sanctions to enforce innovation and change, especially when legislation is involved.

In order that innovations may be adopted at personal level, most of them require fresh knowledge, new skills and attitudes and very often new value orientation. At the social level there must be changes in

norms, roles and relationships.

6.2 Three Models of How Change Occurs :

(1) Research, Development and Diffusion Model : In education the large number of models and strategies are based upon the transfer from theory to practice. Here the major emphasis is on the planning of the change on a large scale. The process could be described in the following steps: (a) Rational sequences of activities leading to → development from research leading to → packaging for dissemination (Research). (b) Planning on massive scale (Development). (c) Division of labour with role allocation (Diffusion). (d) A specified passive consumer willing to accept the innovation with provision for scientific evaluation at every stage of development (Adoption).

This model however tends to under-estimate the stages of diffusion through its assumption that enlightened self-interest of the practitioner will lead to the eventual incorporation of the innovation.

Brickell. H.M. states that there are three separate processes, (i) design (ii) evaluation and (iii) disemination which are distinct and irreconcilable. It is onething to design a new method of teaching, another to discover how good it is and yet another to demonstrate its utility for purposes of adoption.

An almost similar but more sophisticated model "Research For Better Schools (RBS) shows the following direction: Research -----→ invention -------→ design phases followed by dissemination --------→ demonstration and trial.

(2) Social-interaction Model : In this second model the unit of analysis is the individual receiver and the focus is on the receiver's perception of and response to knowledge emanating from outside, followed by dissemination through interpersonal contacts. In this the distinct phases are those shown by Rogers. E.M. (i) Awareness (ii) Interest (iii) Evaluation (iv) Trial and (v) Adoption.

At each stage in the process, the potential adopter will usually turn to different sources of information, through difference in media. The media tend to play a major role in the stages of awareness and interest while in the final stages of evaluation, trial and adoption, personal sources predominate. Friends, colleagues and professional sources were required to legitimate decisions of adoption or rejection.

Studies have also revealed that early adopters greatly influence (affect) the late adopters. The early adopters are Cosmopolities in nature, more read and well travelled and with better change-agent contacts.

In all cases the key feature is the relation of the leader to a group. Psychologists have demonstrated that identification in a group and with a leader plays an important part in the diffusion of new ideas. Any society or system which has large number of individuals who maintain diverse and overlapping group identifications will tend to be innovative.

(3) Problem-solving Model : Although a receiver may turn to external sources for guidance it is he who has to solve his problems.

Either the change agent or the receiver may intiate the change process, but in either case the desire and the willing participation of the receiver is all important.

The basic properties of the problem-solving approach could be stated in the following steps : (a) The user is the starting place (b) Diagnosis precedes the identification of solution (c) The outside helping role is non-directive (d) The importance of internal resources is recognised (e) User-initiated change is the strongest.

6.3 Conditions of Change :

Literature on social change shows the following : (i) Innovations are readily accepted if (a) the users can understand them (b) they regard them relevant to their situation (c) it helps to plan themselves.(ii) The process is accelerated by using group cohesiveness as a catalyst. (iii) Innovation decision (consensus) is more easy, strong and established if the group makes a decision while-group-interaction improves and may lead to greater inter-dependence in the system. (iv) Teachers involvement in the policy-making process of the school leads to non-alienation and a greater receptivity to change. (v) Innovators amidst teachers tend to operate neither alone nor in large groups, but in groups of two are three, generally in pairs with similar background and status. (vi) Opportunity to experiment in isolation within a system helps a teacher become more innovative, and open-minded in his approaches and attitudes. (viii) Increasing facilities for communication in free surroundings bring people to view one another in a more objective manner and lead them

to co-operate more readily with one another. Miles. M.B. has signalled out six "Interaction Techniques" which are appropriate to education :

The six interaction techniques :

(a) Team Training : Group approach to common problems with consultancy service with a status-free relationship among members.

(b) Survey Feed-back: Date of each work group compared to the data from total groups helps improving feelings of alienation.

(c) Role Workshop : Comparing the Data on "role expectation" of individuals by others, their own expectation and actual role performance helps to improve discussions, decision-making exercises role practice and problem solving abilities.

(d) Target setting and supporting activities : Working-relationship between the subordinates and the superiors is improved in the light of suggestions in relation to setting of goals for the individual and for the organisation with mutual consent to work for achieving them with periodical reviews of the work done.

(e) Organisational Diagnosis and Problem-solving : School personnel meeting often for discussion on existing problems and their solutions with periodical reviews the main objective being strengthening group cohesiveness and problem solving activities.

(f) Organisational Experiment : Same as above with plans for experimental approach and scientific verification of results of experimentation by individuals.

Revealings :

(a) The R and D model reveals the fact that we lack institutional structures for the design and development of new ideas and material.

(b) The problem-solving model demonstrates the paucity of processes for implementing changes once we have decided to undertake them.

(c) The social interaction model shows that we have few vehicles for the dissemination of innovation to the mass. Until now none of the models is fully developed in practice nor there is an success in combining all three approaches into a general paradigm.

As might be expected, each national system has its own method of organising and harnessing the innovation process. Some operate with centralised research and diffusion bureau (e.g. France, Poland, Norway) others rely on semi-autonomous agencies (e.g. U.S.A., United Kongdom).

However it is seen that in any strategy of change, provision should be made for (a) research and development (b) vehicles for introducing change within a single system and (c) mechanism for spreading innovations throughout the system. The particular techniques, however, and their sequences of adoption will inevitably vary from one country to another. The important factor appears to be the creation of mechanisms beyond those required to operate the education system; there is the need for establishing new agents in the environment in order that they may accelerate and supervise the different phases of the process.

6.4 Evaluating Innovations and Change :

Even now our school systems are rarely equipped or even motivated to attempt to evaluate the effects of their new practices. The precise manner of evaluating any innovation is by trying it out on an experimental basis and by comparing the results with the control groups' results. This is perhaps not feasible mainly because of the finance and time involved in the evaluation mechanics. Neither can they afford the luxury of controlled situations and measurable procedures for long where school children are concerned. Teachers are often unwilling to risk failures in the eyes of external evaluators.

There are many such limitations and short comings in the meeting of the needs of a good evaluation procedure. However a good evaluation programme should consist of certain characteristics as suggested by Hilda Taba : They are (1) consistency with objectives (2) comprehensiveness (3) sufficient diagnostic value (4) validity (5) Unity of evaluative judgement and (6) continuity.

In the absence of scientific evidence as to whether the innovation will result in increased or more efficient learning it may be that the most important criteria for evaluating change are those related to the effect on schools' potential for change in future. It may seem somewhat paradoxical but the side effects of an innovation may count more than the direct effects. Miles. M.B. bears this in mind to give his list of 'Innovative success criteria' : (i) use of innovation to accoplish broader purposes than those originally envisaged. (ii) Existence of publications to draw the attention of a wider audience to innovation (iii) Improved attitudes or skills of the innovators to favourably affect future innovations (iv) Diffusion of innovation to other systems. (v) Stimulation of innovation in similar areas. (vi) Advancement innovation practitioners.

Finally it is good that the evaluation of school systems may be done in terms of the traits and functions of "Innovative Institutions". In this case, the assumption would be that school systems with goal focus, communication adequancy, optimal power equalisation, cohesiveness, morale, innovativeness, autonomy, adaptation and problem solving adequacy would tend to make frequent and effective changes.

7. Factors of This Study :

In the light of the theoretical frame of reference discussed elaborately in the earlier pages of this chapter, it was decided to study the following factors about each innovative school selected for this investigation to make the findings more relevant and meaningful: (a) Innovative practices in secondary schools (b) Process of innovation adoption. (c) Resistance and barriers to change. (d) Factors associated with "Innovation in schools" operating from outside the school system. (e) Pupil-performance in the external examinations (academic achievement level of schools). (f) The major intrinsic factors of a school system affecting the process of innovation. viz: (i) leadership behaviour of the headmaster (ii) teacher morale (iii) change proneness of teachers (iv) organisational climate of schools.

8. Theoretical Foundation (for the choice) of the above factors:

(a) Innovative practices in secondary schools : To know about an innovative institution, be it educational or business oriented, the focus of study could be the number and types of practices practised in that organisation. In short an "Innovative Index" is necessary to show the details such as (i) the number of innovative practices that could be identified to be in vogue (b) how many among those innovative practices could result in desired change, in a change but not an expected one, how many are still in a trial stage and how many were discontinued in the past.

The Unesco regional office for Education in Asia (RØEA) organised under its "Asian Programmes of Educational Innovation" (ACEID) a technical working group meeting on the "Management of Educational Innovations" at New Delhi in India in March 1975. The working group evolved a case study format for studying 'Innovations and their management'. The first-step of the format describes the need for studying the 'Typology' of the innovation. The typology would imply the information of the kind just described in the previous paragraph.

Ivor Morrish (1976) from his study of the various studies on innovations by pioneers like Miles. M.B. (1967), Havelock (1971) and Rogers and Shoemaker (1973) concludes that the primary factor of distinction between the innovative and the non-innovative institutions could be the innovative practices and their types.

(b) Process of innovation-adoption : Morrish (1976) says, "Planning on a proper scale is certainly calculated to increase its chances of diffusion and adoption, and it is therefore important to look more closely at the sources of change, at those impulses and energies which motivate individuals and groups to innovate, and at the conditions under which innovations are predisposed to arise and develop."

Nicholls. A. and Nicholls. H. (1975) in their treatise on "creative teaching" point out in the form of a list to be studied for understanding the process of innovation. The list includes (1) Teachers disposition and understanding of the innovation (2) Teacher capabilities

for implementation (3) Provision of necessary resources and (4) the necessary administrative and organisational arrangements to be made.

Other studies show that, study of factors associated with the process of innovation adoption viz: (i) the source of the idea (ii) the categories of adopters (iii) the stages of adoption and its congruence with the system, will constitute a meaningful body of knowledge and information to understand the success of an innovative system.

(c) Resistance and barriers to change : Huberman (1973) in his "understanding change in education" an Unesco publication, says, "It is held by anthropologists that resistance to change is proportional to the amount of change required in the receiving system". "Individuals tend to resist more strongly at a point where the pressures of change are greatest" observes Morrish.

Resistance can be seen in the form of an 'S' shaped curve. Havelock. R.G. (1971) has expressed the theme in terms of a formula viz: Innovation = Demand - Resistance ; in which the factor of resistance however great the demand may be, will inevitably limit the success of the innovation. "The laws of supply and demand do not follow any precisely predetermined pattern".

Watson. G.'s (1967) model or "Stage theory" of resistance again confirms the diverse causes for resistance and their unpredictability. He attributes resistance mainly to two types of causative factors namely (1) Personality factors such as homeostasis, habit, primacy, dependence, super-ego, self-distrust, insecurity,

regression and selective perception and (2) resistance in action such as rejection through ignorance, rejection through default, social mores and interpersonal relationships.

Thus it is very important to study the types barriers and the causes for resistance, the major factors in the way of implementing an innovation successfully. The scope of the present study is limited to listing of the kinds of barriers in school systems taken up for case-study purposes.

(d) Factors associated with 'Innovation in Schools' operating outside the school system : Many supporting evidences have been shown in the earlier studies about the influence of such factors as education department, society, parents and neighbouring schools on the innovation of any school. These are factors and agencies which are very much associated with the innovative practices of the schools in an area.

The Education Department, in the Indian Education context, is an authentic source of innovation in schools. The agent of the education department who functions in direct relationship with schools in the matters of innovation is the District Education Officer. The department issues circulars and directives for implementing innovations in schools following them up by the supervisory activities of the District Education Officer who is more or less one with the role of a 'change-agent' but still stopping with the supervisory roles. However it is not out of his prerogative to act as a change agent for innovation in schools under his jurisdiction. When the innovative

proneness of the District Education Officer in certain individual instances happens to be low, this low ebb permeates into the innovative spirit of the schools as well. Thus the District Education Officer, as an agent of the department machinery can affect the innovation in schools. In practice it is found that the education officers are more concerned with their administrative and supervisory roles than to evince interest in promoting the innovativeness of schools.

Almost a similar description suits other agencies as well. The parents and the society provide the moral support in the maintenance of the school-morale in all the matters of innovation because the ultimate beneficiaries of the school practices are the parents and the society through their school children. Ignorance of members of the society resulting in alienation to school affairs, political influences causing group-pressures on the adopter-system of a school are a few examples of the types of influences causing serious limitations and even obstructions in the innovative structure of the schools.

Neighbouring schools and their own innovative styles and structures tend to provide direction and set the goals for other institutions. This role of the neighbouring schools is not something assigned to them but born out of conventions and traditions. It is found that a non-innovative school pollutes the morale of the innovative schools in its neighbourhood.

All the above cited factors have been studied and found by many of the earlier researchers to be the potential ones that operate

from outside the school systems but yet are capable of powerfully influencing the innovative structure of schools. The roles and the types of influences of such roles of mainly the parents and society have been studied in this investigation about each school and the data is added to the case-study profiles.

(e) Pupil performance in the external examination (Academic Achievement) : This is again an important issue very often given maximum conventional weightage in terms social prestige or social status of the schools. The school producing cent-percent passes in the school final examinations, (which are the public examinations conducted by the secondary education boards which are administered by the State Governments) is acknowledged as the "best" school by the society. The quality of being the conventionally best is a factor strictly indicating only the proficiency level in Academic achievement. But, very often, even the well informed sources of the public confuse the issue of the innovative level with the academic achievement level of the schools, with the result that when asked to point out an innovative school, they often point out a school with better academic achievement. Of course, it is not an untruth to say that the innovativeness of a school if high is bound to produce best pupil performance because the goal of all innovation in an educational system could be towards higher standards of academic proficiency.

But earlier studies have evidences to show that a school with many innovative practices to its credit need not be one producing high percentage of passes in the public examination. Therefore, it is included in the scope of this study to find out the extent of positive

relationship between thse two factors namely "Innovative Index" of a school and its level of "Academic Achievement".

(f) The major intrinsic factors of a school system affecting the process of innovation : The major factors identified in this category, based on the results of earlier research findings, are those indicated below: (1) Leadership behaviour of the headmaster. (2) Teacher-morale. (3) Change-proneness of the faculty members and (4) Organisational climate of schools.

The theoretical foundations based on the empirical data relating to the above four factors and their dimensions will be dealt elaborately in the following few pages:

8.1 Leadership Behaviour of the Headmaster :

The Theory and Concept of Leadership : Theorists and researchers have observed the need for a functional theory in leadership. The concern about relying rather heavily on naive empiricism grew into intensity gradually and it eventually resulted in the emphasis for having a theory of leadership. Eventually, the efforts took the form of conceptualisation about'leadership behaviour' in the sense in which social scientists would interpret 'behaviour'.

In this process of theorization and conceptualisation of leadership, a number of notions regarding 'leaders' and 'leadership' have come to be abandoned or modified.

A leadership theory has been worked out by Bennis (1959). He defines leadership as the process by which an agent induces a

subordinate to behave in a desired manner. According to the leadership theory of Bennis, leadership consists of power, leader and influence. "Power is the perceived ability to control appropriate rewards; a leader is an agent who in fact wields these rewards (or punishment); influence is an agent's control over the subordinates" satisfaction of needs.

Kats and Kahn (1966) have discredited the fact that leadership is the virtue only of the top executive. According to them, leadership may take place at any point in the organizational hierarchy.

Halpin (1966) focuses on the central psychological characteristic of leadership behaviour. To quote his words: "The behaviour of the leaders and the behaviour of group members are inextricably inter-woven, and the behaviour of both is determined to a great degree by the formal requirements imposed by the institution of which the group is a part."

According to the social psychologists, leadership (or leader behaviour) is a special phenomenon arising from group action; it is not considered as a special property or gift on an individual. Although some people appear to possess more of the characteristics conducive to leaders behaviour than others, leadership occurs in group situations. Gibb (1954) lists the following three conditions as essential to leadership activities: (a) there is a group (b) the group is unified around mutually agreed goals, and (c) certain tasks or roles have been assigned-officially or unofficially - to the various group members. This concept implies that leadership evolves

from a dynamic and interacting group that is held together by loyal ties to an individual, but concerns for the goals-taks-of the group.

The quality of interaction of persons in a group - the impact of effective leadership may be distinguished by such action terms as initiative, originality, communicationg, empathy, understanding, cohesiveness, morale and productivity.

The new concept of leadership does not, rest merely on status or seniority but on ability and merits. A degree of Bachelor or Master of Education or seniority of service in a school does not equip one necessarily with the ability or merits to provide instructional leadership to the school staff. Leadership is rooted in certain behaviour patterns; it is goal-oriented and hinges on knowledge, skills and attitudes of an individual or the group and draws its sustenance from human relations.

Two categorisations or models of leadership have been put forward. One of them is put forward by Gatzels and Cuba (1968) and the other by Miles and Porter (1966). Gatzels and Cuba have suggested that leadership-followership styles can be grouped into three categories. He calls the first category as normative style where the emphasis is placed on the requirements of the institution, and the expectation rather than on the requirements of the individual, the personality and the need-disposition. The second category is described as personal style which emphasises requirements of the institution, the role and the expectations. The third category is designated as Transactional style under which expectations are defined sharply as

they can be but not so sharply as to prohibit appropriate behaviour in terms of need-dispositions. Role conflicts, personality conflicts are recognised and handled. The standard of administrative excellence consists of individual integration and efficiency and institutional adjustment and effectiveness. The transactional style calls attention to the need for moving towards one style under one set of circumstances and towards the other style under another set of circumstances.

Miles and Porter (1966) have developed three theoretical leaderships models which they call the Traditional Model, the Human-R Relation Model and the Human-Resource Model. The "Traditional Model" prescribes close supervision and tight control of subordinates performing narrowly defined jobs. The assumption is that people are basically lazy, uncreative and concerned only with what they earn, not with what they do to earn it. This model anticipates maximum performance if the administrator exercises right control.

The second model is called the "human relation model". It prescribes a limited amount of subordinate participation in decision-making and limited subordinate self-control. It seems from the assumption that people are essentially loyal and dependable if they feel that they are important to the organisation and their work is recognised by their superiors. This model anticipates that limited participation will improve subordinates' morale and need satisfaction and thus make them more willing to co-operate.

The third model is the HUMAN RESOURCES MODEL. It prescribes a continually expanding degree of subordinate participation, self-direction and self-control on the assumption that the creative resources of most organizational members are seldom fully utilised and that, given the opportunity, most people will exercise responsible self-direction in the accomplishment of goals they have helped to establish. This model anticipates that subordinate participation will directly improve organisational decision-making and performance and provide deeper satisfaction of the needs of most members or the organisation.

Traits of Effective Leaders : Weber and Weber (1950) discuss the personal qualities theory of leadership in terms of research data and conclude that the Traits Theory as an adequate explanation of leadership. Personal qualities or traits of leadership are highly important, but leadership is a function requiring certain personal behaviour found to be successful in given situations. Personal qualities of leadership must be examined within the situation itself.

Gouldnej (1950) gives support to the situation theory of leadership by stating that there seems to be little evidence for believing that there are any universal leadership traits. There seems to be evident that, when several situations have characteristics in common, apparently some traits of leaders tend to be more effective in each of those groups. that have similar characteristics. In short, some traits of leadership can prove to be effective in certain similar situations.

Stodgill (1948) reviewed 148 studies of the characteristics of leadership. His conclusion is that these studies yield negligible and often contradictory results. He has, however, found the following characteristics traits to constitute leadership behaviour.

(1) sociability (2) initiative (3) persistence (4) knowing how to get things done (5) self-confidence (6) alertness to, and insight into, situations (7) co-operativeness (8) popularity (9) adaptability and (10) verbal facility.

The following conclusions are supported by uniformly positive evidences from another set of ten or more studies.

(a) The average person who occupies a position of leadership exceeds the average members of his group in the following respects : (1) intelligence (2) scholarship (3) dependability in exercising responsibility (4) activity and social participation, and (5) socio-economic status.

(b) The qualities, characteristics and skills required in a leader are determined to a large extent by the demands of the situation in which he is to function as a leader.

It may be observed that the effective leaders, among others, manifest the following :

1.	Capacity	:	(Intelligence, alertness, verbal facilities, originality, judgement).
2.	Achievement	:	(Scholarship, knowledge, aesthetic accomplishments).
3.	Responsibility	:	(Dependability, initiative, persistence, aggressiveness, self-confidence, desire to excel.)
4.	Participation	:	(Activity, sociability, co-operation, adaptability, humour).
5.	Status	:	(Social-economic position, popularity).
6.	Situation	:	(Mental level, status, skills, needs and interests of followers, objectives to be achieved, etc.)

But this does not prove the validity of the approach to identify and evaluate the effectiveness of leadership solely on the basis of the traits approach. Perhaps, the following summarisation of the studies on the leadership traits by Stanford (1952) presents the current scientific thinking on this issue: (a) There are no general leadership traits or, if they do exist, they are not to be described in any of the familiar psychological or common-sense terms. (b) In a specific situation, leaders do have traits, which set them apart from followers, but what traits set what leaders will vary from situation to situation.

Leadership Behaviour Pattern : The recent trend is to refer to leaders behaviour rather than to leaders' traits. But leader behaviour varies with not only the individuals but with the same individuals in different situations. As Halpin (1966) observes, "to say that leader behaviour is determined exclusively by situational facts is to deny to the leader freedom of choice and determination." Hemphill (1949) has too found that not only this situational variance affects the leader behaviour but variance in size of the group affects leader behaviour differently. Halpin (1966) also observes: "The leader in a larger group tends to be impersonal and is inclined to enforce rules and regulations firmly and impartially, In smaller grpups, the leader plays a more personal role. He is more willing (and perhaps also more able) to make exceptions to rules and to treat each group member as an individual."

There are two widely used research instruments that contain dimensions of leader behaviour. They are the LBDQ by Halpin and

Winer (1953) and the OCDQ by Halpin and Croft (1963). The dimensions of the LBDQ are : Initiating Structure and Consideration; those of the OCDQ are : Aloofness, Production, emphasis, Thrust and Consideration. These dimensions are briefly described as under :

The LBDQ Dimensions :

(1) Initiating Structure : It means the behaviour that facilitates work-accomplishment. Its main objective is to get the work done in order to attain the goals of the institution. The term has been defined by Halpin (1966) as the leader's behaviour in "delineating the relationship between himself and the members of the work group and in endeavouring to establish well-defined patterns of organization channels of communication and methods of procedure."

(2) Consideration : This leadership construct refers to "behaviour indicative of friendship, mutual trust, respect and warmth in the relationship between the leader and the members of his staff." (Halpin (1966). It may be perceived as behaviour that sets the social tone or creates psychological climate and ethos for work. It has something to do with what social psychologists have referred to as the social needs satisfaction of the members of an institution.

The OCDQ Leader Behaviour Dimensions :

(1) Aloofness : It refers to the leader's behaviour which is characterized as formal or impersonal. His values are universalistic rather than personalistic, monotheistic rather than ideographic. He prefers to be formal rather than informal in dealing with other members of his organisation.

(2) Production Emphasis : It reflects behaviour which is characterized by close supervision of the staff. The leader's communication tends to be restricted to getting the members to do the task and he is not sensitive to feed-back.

(3) Thrust : It denotes behaviour of the leader which is characterized by his overt efforts in trying to get the organization going. It is not characterized by close supervision but by the leader's attempt to motivate the members through the example he sets. Though task-oriented, it is viewed favourably because the leader does not require of the members more than he willingly gives the himself.

(4) Consideration : It points to leader behaviour, characterized by a desire to treat members humanly. It is similar to the 'consideration' dimension of the LBDQ.

Thus, in both the tools - the LBDQ and the OCDQ - 'consideration is a factor of leader behaviour. But it may be necessary here to clarify the concept of 'consideration' that the authors of both these tools had in mind. It does not mean a smile on the face which is almost a formality. It is not like the smile of an Air Hostess. It is not like the only affability which members of school management board and even the school principals are found to manifest at school picnics or school parties. As Halpin puts it "Genuine consideration must be focused upon the individual recipient and must be tuned to his requirements at a particular time and place."

8.2 Organisational Climate of Schools :

Human behaviour in organisations has always been a phenomenon of interest and concern. However, it has only been in recent years that organizational behaviour has emerged as a field of systematic study. The major characteristics of this field has been the concerted effort by social scientists to develop a body of tellable and generalizable knowledge about the behaviour of individuals in organisations. The major reason for this development stems from the strong influence of the systems theory model of Scott, William. G. (1963) upon current approaches to the study of organizations.

The author defines "climate" as a set of organizational properties which may influence the behaviour of individuals in organizations. As such when an individual visits a number of schools, he notes quickly how schools differ from one another in their "feel". He finds the teachers and the principal zestful, exuding confidence in what they are doing in one school, whereas in other, the brooding discontent of teachers is palpable and the principal trying hard to hide his incompetence and poor leadership. The psychological sickness of such a faulty behaviour spills over on the students who, in their own frustration, feed-back to the teachers a mood of despair. Thus, when one moves from school to school one finds that each appears to have its own "personality". It is this "personality" that we describe here as the "organizational climate" of the schools.

Studies in organizational climate began in the U.S.A. in sixties and in India in early seventies. In the U.S.A. the leaders

were Halpin and Croft. Researches show that schools differ from one another in their 'feel', or 'personality' or 'the organizational climate'. Halpin says, "personality is to an individual what organizational climate is to an organisation." Efforts of Argyris (1958), Halpin and Croft (1963), Willover and Jones (1963), Feldvebel (1964), Brown (1965), Forehand and Glimmer (1969) have largely contributed to the clarification of the concept of organizational climate, its relevance in the improvement of several dimensions of achievements in the school including teaching-learning and the methods and procedures for its measurement.

Organizational climate of an institution shows the pattern of social interaction that takes place within the school family. The main units of interaction are individuals constituting the community in the institution, the group as a whole and the leader. Halpin and Croft have developed instrument and procedures of measurement of climate which they focus on interactional process to describe it as the one that takes place between the leader (Principal) and the group (teachers). It is the nature, extent and quality of this interaction that creates a climate in the institution which either facilities or hinders the attainment of its goals through its programmes. The interaction that takes place in a school is within its physical sociological and managerial frame-work. The growing literature in this area shows that there are several possible variables contributing to the school climate such as the objectives of the school, the past traditions or ethos established in the school, the nature, purpose and interest of the management committee, character, abilities and attitude of the

leader, the teachers that compose the staff, the financial condition of the school, the nearness or the distance of the local community from the school, the physical plant of the school, its location and environment, etc. which affect the climate of the school. But the study of organizational climate focuses mainly on the interaction between the leader and the led (teachers), between social need satisfaction and the task-achievement.

Nelson (1960) has classified the organizational climate into four types, viz. (1) the bureaucratic, (ii) the autocratic, (iii) idiocratic and (iv) democratic. However, Halpin and Croft have identified in the research referred to earlier, six categories of climate with 'openness' at one end of the continuum and 'the closedness' at the other end. The climate types are shown in the opposite page.

Halpin and Croft (1963) did a pioneering work in the study of organizational climate by using sophisticated statistical devices. They identified six climates - open, autonomous, controlled familiar, paternal and closed in a continuum and determined the characteristic behaviours of principals and teachers under eight components or subtests which they called 'disengagement, hindrance, esprit, intimacy, aloofness, production emphasis, thrust and consideration'. The researchers' singular contribution to the study of organizational climate lies in their development of the study-tool 'the organizational climate description questionnaire' (the OCDQ) having 64 Likert type question-items, which facilitates, with considerable case, the measurement of organizational climate of an educational institution. The exploratory inquiry used a sample of 71 elementary schools from six

different regions of the U.S.A. In order to facilitate the process of identification of organizational climate of a school or schools, they constructed a profile or a psychograph. By comparing the profiles of different schools with the given master profile, a school can appropriately be identified with an organisational climate pattern.

Halpin has been able to identify six types of organizational climate for schools, referred to above. The climate types 'open, autonomous and controlled lean towards openness in descending degree and the climate types familiar, paternal and closed manifest closedness in increasing degree.

The Organizational Climate Descriptive Questionnaire (Halpin and Croft, 1963) was standardized on 71 elementary schools chosen from six different regions of United States taking 1151 teachers as the respondents. This tool has also been used by different researchers in India.

Description of the Tool :

The OCDQ is composed of 64 Likert type items which teachers and principals use to describe the climate of their schools. The 64 items of the Questionnaire were assigned to eight sub-tests of which four refer to the characteristics of the teachers as a group and other four refer to that of the principal as a leader. The eight sub-tests are :

Chcracteristics of the group (Teachers' Behaviour) :

(1) Disengagement (2) Hindrance (3) Esprit (4) Intimacy

Behaviour of the leader (Principal's or Headmaster's Behaviour):

(5) Aloofness (6) Production Emphasis (7) Thrust (8) Consideration.

The description of these eight dimensions according to Halpin and Croft runs as under :

(1) Disengagement : It indicates that the teachers do not work well together. They pull in different directions with respect of the task, they gripe and bicker among themselves.

(2) Hindrance : It refers to the teachers' feeling that the principal burdens them with routine duties, committee demands, and other requirements which the teachers construe as unnecessary busy-work. The teachers perceive that the principal is hindering rather than facilitating their work.

(3) Esprit : It refers to 'morale'. The teachers feel that their social needs are being satisfied, and that they are, at the sametime, enjoying a sense of accomplishment in their job.

(4) Intimacy : It refers to the teachers' enjoyment of friendly social relations with each other. This dimension describes a social need satisfaction which is not necessarily associated with task accomplishment.

(5) Aloofness : It refers to behaviour by the principal which is characterized as formal and impersonal. He "goes by the book" and prefers to be guided by rules and policies rather than to deal with the teachers in an informal, face-to-face situation. His behaviour, in brief, is universalistic rather than particularistic; monothetic rather than ideosyncratic. To maintain this style, he keeps himself at least, "emotionally" - at a distance from his staff.

(6) Production emphasis : It refers to behaviour by the principal which is characterized by close supervision of the staff. He is highly directive and task-oriented. His communication tends to go in only one direction, and he is not sensitive to feedback from the staff.

(7) Thrust : It refers to behaviour marked not by close supervision of the teacher, but the principal's attempt to motivate the teachers through the example which he personally sets. He does not ask the teachers to give of themselves anything more than he willingly gives of himself; his behaviour, though starkly task-oriented, is non-etheless viewed favourably by the teachers.

(8) Consideration : It refers to behaviour by the Principal which is characterized by an inclination to treat the teachers "humanly", to try to do a little something extra for them in human terms.

From these eight identified independent dimensions of organisational climate Halpin and Croft specified a set of climates. They identified six organizational climates which can be arranged along a continuum defined at one end by an open climate, and at the other by a closed climate. The six identified climates are termed as the 'Open', the 'Autonomous', 'Controlled', the 'Familiar', the 'Paternal' and the 'Closed'.

(a) 'Open' climate describes an energetic lively organisation which is moving toward its goals, and which provides satisfaction for the group members' social needs. Leadership acts emerge easily and appropriately from both the group and the leader. The members are

preoccupied disproportionately with neither task achievement nor social needs satisfaction; satisfaction on both counts seems to be obtained easily and almost effortlessly. The main characteristic of this climate is the "authenticity" of the behaviour that occurs among all the members.

(b) 'Autonomous' climate is described as one in which leadership acts emerge primarily from the group. The leader exerts little control over the group members, high esprit results primarily from social needs satisfaction. Satisfaction from task achievement is also present, but to a lesser degree.

(c) 'Controlled' climate is characterized best as impersonal, and highly task-oriented. The group's behaviour is directed primarily toward task accomplishment, while relatively little attention is given to behaviour oriented to social need satisfaction. Esprit is fairly high, but it reflects achievement at some expense to social needs satisfaction. This climate lacks openness, or 'Authenticity' of behaviour, because the group is disproportionately preoccupied with task achievement.

(d) 'Familiar' climate is highly personal, but under-controlled. The members of this organization satisfy their social needs, but pay relatively little attention to social control in respect to task accomplishment. Accordingly, esprit is not extremely high simply because the group members secure little satisfaction from task achievement. Hence, much of the behaviour within this climate can be construed as 'inauthentic'.

(e) 'Paternal' climate is characterized best as one is which the principal constraints the emergence of leadership acts from the group and attempts to initiate most of these acts himself. The leadership skills within the group are not used to supplement the principal's own ability to initiate leadership acts. Accordingly, some leadership acts are not even attempted. In short, little satisfaction is obtained in respect to either achievement or social needs; hence, esprit among the members is low.

(f) 'Closed' climate is characterized by a high degree of apathy on the part of all members of the organization. The organization is not 'moving', esprit is low because the group members secure neither social needs satisfaction nor the satisfaction that comes from task achievement. The members' behaviour can be construed as 'inauthentic', indeed, the organisation seems to be stagnant.

8.3 Teacher Morale :

(a) Concept : The concept of morale has been defined differently. The dictionary meaning states as the prevailing mood and conducive spirit to dependable performance and the other which points out confident spirit of whole hearted co-operation in a common effort. Thus the importance is to the mood and spirit of a group leading to whole hearted performance of individual members. Thus it implies sincere, genuine co-operation of the members of an organisation in the pursuit of common goals in a common effort.

Scholarly expositions add further dimensions to the term morale such as (1) It is a group concept more applicable to the individual members of the group. (2) It is a relative concept than

absolute (3) Identification with organisational goals. (4) A group phenomenon with four components viz. (i) group solidarity (ii) group goal (iii) observable progress towards the goal and (iv) individual's participation in reaching the goal and (v) goal attainment. Thus morale is a complex concept. It is related to individual and group. The central idea or dimension of the concept of morale is identification of the personnel of an organisational with its goal. Such an identification generates in the individual remarkable energy to move whole-heartedly towards targets set for the group achievements.

In a school situation, morale means teachers' confidence in the leadership of the school-principal, their identification with school objectives and programmes, solidarity and friendliness among them consideration for colleagues by the principal, fewer conflicts, between principal and staff and among the staff themselves, freedom for teachers to innovate and with more openness.

Theoretically, morale describes psychological need satisfaction. Its frame of operation is total job-satisfaction. It presupposes in the individual, a feeling of general well-being and psychological comfort.

(b) Theory : So many theories have been put forward by researchers about the concept of morale.

Elton Mayo (1933) and Dickson (1941) give importance to enhanced morale of the teachers in relation to their feeling of social cohesiveness in their 'work-group theory'.

Getzel's three-variable approach theories the morale as "Goal-achievement" which is in direct relationship with the three factors viz: Belongingness, identification and rationality.

Beggs says that if a teacher could feel that his personal and Social needs were satisfied by his job, their teacher would exhibit 'belongingness'.

Yet another theory states that the basic needs of teachers should be satisfied to maintain morale and thus morale is a matter related to sense of fulfilment. Halpin (1963) has put forward his theory of morale as related to social needs. The latter refers to behaviour of the individual towards the establishment of positive social relationship with others. The 'Esprit' sub-test of the OCDQ is a measure to determine teacher morale of a school in the sense that to what extent teachers feel that their social needs are satisfied and that they are, at the same time, enjoying a sense of accomplishment in their job.

(c) Components : The concept and theories of morale given in previous sub-sections are calculated to help in building up a broad conceptual model of frame work of morale in general and of teachers morale in particular. But the concept of morale becomes more concretised in the measuring instruments developed to determine morale. Scales have been constructed to measure morale. There are many morale-measurement scales. But the widely used one is the purdue Teacher Opinionnaire of Bentley and Rempel.

The components measured in the tool (PTO) are indicated below:

(1) Rapport among teachers (2) Satisfaction with teaching (3) Community support (4) Teacher salary (5) School facilities and services (6) Teacher rapport with principal (7) Teacher load (8) Teacher-status (9) Curricular issues (10) Community pressures.

8.4 The Change Proneness :

The acceptance of innovation is a matter very much related to the mental process. The general disposition or reaction of an individual towards innovation depends upon his personal commitment to change. The word 'proneness' also means the 'Inclination towards'.

Concept and Components : To develop the inventory for measuring the change proneness, it was essential that the personal commitment be analysed to further smaller components. Miller (1967) suggested three components-mental flexibility, open-mindedness and curiosity. To specify the components, the expertise was sought for and was found that there was consensus in the following : A change prone teacher is 'openminded' eager to know, described as 'curiosity' by Miller and is ready to make extra effort reviews his own actions periodically, communicates ideas to others and have experimental attitude.

It is generally agreed that the principal's change-proneness needs to have special consideration. Beside his personal qualities, his administrative behaviours should also indicate his change-proneness.

Thus the presently measured dimensions of the teachers through the 'change proneness Inventory' are : (i) Open mindedness (ii) Mental flexibility and (iii) Curiosity.

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