CHAPTER - I

SIGNIFICANCE

1.1 The World Educational Crisis:

Recently, people in all walks of life have been come across in one way or other, with the dilemmas surrounding the rapidly changing role of formal education in modern societies. The educational systems, all over the world have experienced an unprecedental expansion. The population spurt all over the world during and after 1920's, with the awakened desire for education in the developing countries and the impact of the explosive increase in knowledge have called for immediate quantitative expansion and qualitative enrichment of the educational systems all over the world.

Education therefore has emerged as the largest local industry with doubled enrolement of students and expenditure on education has risen up at a faster rate. Despite this great educational expansion, a parallel population growth has led to an increase in the aggregate number of adult illiterates in the world. According to UNESCO's report,(1970), 'Asia' currently exceeds 355 million illiterate adults, or almost 58 per cent of their active population. The crisis conditions have been encroaching on educational systems every where and already many countries have come under their grip.

School remains not only the first bureaucratic situation that people encounter, but it is the one that has prolonged and sustained impact on their lives with the introduction of compulsory education and increasing duration of compulsion, more and more young people spend more and more years, than ever before. It is a fact that national educational systems have always tied to a life of crisis. Each has periodically experienced a shortage of funds, teachers, class rooms and teaching materials. Community has been trying to control over the school, student unrest, teacher militancy, castism and tensions among the social classes in school are constant reminders of much broader social issues: the growing centralisation of government control, the increasing influence of the youth culture, the national cleavages among ethnic and class groups in a society, and attempts to democratize socially stratified communities are a few more problems. The problems now wracking the fabric of education are the shock waves from repeated failures of educational organisations to adopt these social changes.

Since 1945, all countries have undergone swift environmental changes, brought about by a number of concurrent world wide revolutions in science and technology; in economic and political affairs, in demographic and social structure. Educational systems have also grown and changed more rapidly than ever before. But they have adapted all too slowly to the faster pace of events on the move all around them. Some schools that have ahead of their time, in the vanguard of change, have confronted a reluctant public dragging their feet. But perhaps more typically schools have changed too slowly and are reeling under attacks from various groups because they lag behind the times. The response for the pressing demand for swift changes from within and from without, is typically very slow from the education systems and this slow response has brought the educational systems all over the world under severe criticisms from various quarters.

Coombs(1968) describes the situation as a 'world educational crisis", more subtle and less graphic, than 'food crisis' or a military crisis but no less weighted with dangerous potentialities. The crisis varies in form and severity from one country to the next. But its inner lines of force appear in all nations alike, whether they are old or new, rich or poor, whether they have stable institutions or struggling odds. The assorted specific causes of this disparity as given by Coombs(1968) are: (1) the sharp increase in popular aspirations for education, (2) the acute scarcity of resources, which has constrained educational systems from responding more fully to new demands, (3) the inherent inertia of educational systems which has caused them to respond too sluggishly in adapting their internal affairs to new external necessities, even when resources have not been the main obstacle to adaptation, (4) the inertia of socities themselves - the heavy weight of traditional attitudes, religious customs, prestige and incentive patterns and institutional structures - which have blocked them from making the optimum use of education and of educational man-power to foster national development.

To do their part in meeting the crisis, educational systems will need help from every sector of domestic life, much more help also from sources beyond their national boundaries. More money need to buy the real resources; they need a fuller share of the nation's best man-power to raise its quality, efficiency and productivity. They need building equipment, better learning materials, above all, what money alone cannot buy - ideas and courage, determination and a new will for appraisal reinforced by a will for adventure and change. It is time to seize opportunities for innovations that help teachers to achieve more in class rooms.

Indeed the worldwide educational crisis is shot through with irony. While the crisis has occured amidst a virtual explosion of knowledge, education as the prime creator and conveyor of knowledge, has generally failed to apply to its own inner life, the research function it performs for society at large. Education thus places itself in an ambiguous position. It exhorts every one else to change his way, yet seems stubbornly resistant to innovation in its own affair. It lacks scientific methods to analyse its affairs and scientific research to improve its practices, efficiency, and output. A major reason for this is that theoreticians and practioners are frequently on different wave lengths, with the theoreticians unable to appreciate the basic problems of the practising teachers.

1.2 Why Schools Should be Change Oriented?

Things never just stay as they are; they change whether they improve or decay. There is, something very positive about change.

The school is a fragile, vulnerable organism that needs nurturing and encouragement, if it is cope with anything more than daily survival. Each school is a natural, not a mechanical system. Consequently, as the ecologist tells us, a school cannot be adequately understood in terms of its isolated components and then operation, but only as an inter-related whole.

Goodlad(1975) and his colleagues focussed their attention and research energies on the school as a whole, functioning institution rather than as simply a sum of discrete parts. The concerns of the schools should reflect the concerns of nations schools must be, to a degree, responsive to that society, just as they must be responsive to the exigencies of their own existence. This is why change in school systems need to be dynamic and productive.

Education is almost inevitably direction oriented. Schools are activity oriented. Innovation is accepted and even applauded when it is designed and carefully explained as a way of performing the basic functions better.

Innovations sometimes are pictured as disruptive force shattering the statusquo. When the entire world is experiencing a tumultous sweep of technological and social changes, maintenance of statusquo would soon make the education system disolate. The system that is in equilibrium today will be thrown off balance tomorrow. Innovations are needed to cope up with changing circumstances. What is required today is a dynamic equilibrium and this can be maintained only through innovations. Innovations propose to change regularities in some way. Then, today's innovations become tomorrow's regularities. Change is so unitary phenomenon for which a single innovation or strategy can be effectively devised and implemented.

It is difficult to start something new in schools, because many school teachers and administrators view educational innovations or new practices as fads that will pass if they are ignored. Very often the proposed innovations are not carefully conceptualized and related to other parts of the educational system. It is a fact that educational systems are more resistant to innovation than industrial business enterprises, and that teachers are more problematic to changethan farmers or physicians.

Miles(1964) argues that permanent systems whether individuals, groups or organisations and institutions find it difficult to change themselves. He says that "the major portion of available energy goes to carrying out routine operations and maintenance of existing relationships within the system. Thus, the fraction of energy left over for matters of diagnosis, planning innovation, deliberate change and growth is ordinarily very small." The tendency for all institutions and organisations is to a state of equilibrium which is perhaps one way of preserving identity, character and culture.

Changes today are so numerous and so rapid in their occurence that, very often, it is virtually impossible to establish new habits before the old and relatively more recent ones have been settled. Schools have to develop a self regulating character which will allow the system to become increasingly malleable and competent to meet the demands of the environment.

Some 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 due to certain genotypical and phenotypical characteristics that inhibit change.

Havelock(1971) divides these into input factor, which inhibit change from entering into the school system; output factors which prevent the genesis of change from within; and through put factors which limit the spread of new ideas and practices through the school system.

If the school is to become the dynamic, self-renewing unit that it should be, the energies of its personnel must be focussed on its needs and problems.

Self renewal implies attention to deadwoods and seedbeds (Gardner, 1964). The self renewing organisation also grows old and is producing deadwood. It has therefore to attend to its seedbeds. The seedling are the new ideas, new ways of doing things and new approaches. Courage to fail, high motivation, impatience with emply forms, versatility, openess, flexibility, organising for freedom and systematic innovation are the conditions for self renewal.

Ellich,(1971), Reimer,(1971), Holt,(1971) and finally Toffler(1974) have arrived at the same conclusions as the wave of education reform that swept schools and colleges in the sixties has reached a new phase. The next step in the struggle to restructure education involves convergence of new attitudes toward action.

Toffler, (1974) holds the view that today's schools are too, past and present bound. It is a fact that technological and social change is outracing the educational system, and that social reality is transforming itself more rapidly than our education images of that reality. What follows therefore is a proposed strategy for closing the gap. This strategy is based on a recognition that the future, itself can be a powerful organizing concept for change, but in the internal structure of educational institutions in their external links to the community.

Education in India is under revolutionary change. Sweeping changes are being proposed, brought in and implemented in secondary education. The reformers and critics find fault with virtually every aspect of secondary education and call for fundamental changes in the curriculum, in learning materials and media, in teaching methods, in organisation for instruction and in the education of teachers. In all these areas, number of innovations have been developed and put to test in the schools. But the very many apparently promising educational innovations that have been introduced show little, if any, improvement on existing practices when they are objectively evaluated. In education there seems to be no sufficient confidence or security to study openly and objectively, the mistakes and failures committed.

The Indian Education Commission(1964-66) asserts that education is the only means to bring in the silent social revolution that the nation is determined to initiate and carry through.

Naik(1965) points out that nine factors are calling for change in the educational system in India: (1) need for accepting democracy as a way of life; (2) acceptance of secularism; (3) elimination of poverty; (4) adoption of science and technology for the modernisation of traditional social order; (5) importance of cultural renaissance; (6) concern for developing and understanding about national integration; (7) provision of equality of opportunity; (8) pursuit of excellence and (9) socialism.

Shukla(1973) also stands one with that of Naik in identifying the factors necessitating changes by adding factors like use of leisure, movement of population and speed of change.

The Indian Education Commission(1964-66) called for a renaissance in educational practice and recommended the following programmes for the qualitative improvement at the secondary level: (i) greater competence of teaching staff; (ii) better books and instructional aids; (iii) development of research and experimental attitude; (iv) creative teaching; (v) development of democratic leadership; (vi) improved relationship between teachers and students; (vii) establishment of advanced study centres; (viii) continuous evaluation of educational programmes and (ix) an imaginative administrative system.

Many of these ideas have since been converted into projects and initiated into secondary schools. The stream of innovations which began in 1955-56 with the establishment of the All India Council for Secondary Education, gathered momentum in the later half of the 60's and in the 70's. Foundations such as the United States Education Foundation in India (USEFI) and the Ford Foundation have also served as potential agencies for influencing educational change. The British council for education in India has also contributed its mite for propagating innovative practices in schools.

At the secondary level the initiation for introduction of innovations was taken at the national level. The colleges of Education were required to carry the innovative messages to schools through extention service programmes. For this purpose the extension service movement was started in 1955 and in 1961 the National Council of Educational Research and Training(NCERT) was established. Other organisations like All India Council of Secondary Education(AICSE), State Institutes of Education (SIE) and State Council of Educational Research and Training (SCERT) etc., were established. As a result, a large number of innovations were floated in the field of secondary education.

A critical evaluation of the education system in India began with the appointment of the University Education Commission in the year 1948 and continued when the Secondary Education Commission was appointed in 1954. Their reports stimulated some innovative efforts in higher and secondary education. In the year 1964 the Indian Education Commission was appointed to make a comprehensive review of the entire education system. Its reports emphasized the need for a complete transform of the education system for making it responsive to the challenges of the country's socio-economic developments. Several innovative ideas putforward by the Commission have since been converted into projects.

In 1959 the All India Council was reconstituted and the Directorate of Extension Programme for Secondary Education(DEPSE) was established. The Extension Services Programmes of DEPSE, were carried through a net work of Extension Service Centres attached to the selected colleges of Education in the country. DEPSE floated many innovative ideas by undertaking the following educational activities: (i) extension services projects; (ii) seminars; (iii) experimentation in schools; (iv) examination reform; (v) strengthening of science teaching; (vi) study of special educational problems and (vii) educational publications. The NCERT started the programme of intensive school improvement in 1965.

The National Education Policy "Education for our People" (1978) lays stress on the improvement of the standard of secondary education of the society and has close relation to its cultural, economic and political aspects.

But the schools indicate an inaccessibility to innovative ideas. The new practices that have been introduced in schools, donot take roots and the initial enthusiasm with which the innovations begin is not sustained in many institutions. How to promote innovation in education in an effective manner has become the important issue of educational research today.

A well laid out strategy which foresees the sources of resistance and preplans to win over the vacilators and to neutralize the active resisters is needed if an innovation of a major nature has to be introduced (Buch, 1969).

As Huberman(1973) comments "The most durable and effective innovations are those which the user has internalised; that is, which he has embraced because they satisfy his own specific needs. This implies that we should begin to use radically different methods of institutionalizing changes and using outside experience."

Innovations in Indian Education has been a sporadic phenomenon swept ashore by the occasionally surging tides of official enthusiasm and after that soon ebbed away leaving the innovations in the lurch. Moreover, the innovations that are officially conceived at higher levels donot find in schools, a hospitable atmosphere for development. The innovations developed by individual schools remain isolated within the school boundary. Many innovations adopted are discontinued even before the objectives of the innovations are completely achieved. Some innovations are continued even after the objectives are fully achieved and they become dead weights.

Why, the innovations introduced with good intensions are not successfully adopted? Why are those innovations that are being practised, suddenly dropped out even before the realisation of the objectives? When the need for innovation is felt, when all in the school system is involved, when the committment is there, even then if the innovations donot successfully carried through, the way in which the innovations are introduced and carried through is to be analysed as a potential. The process of adoption, the means the schools select to reach the innovation ends, may be the deciding factor for success or failure.

1.3 Process of Adoption and Discontinuance:

According to Rogers and Shoemaker(1971) an innovation is not an instaneous act. Rather, it is a 'process' that occurs over a period of time and consists of a series of actions.

Paul(1961) has indicated that ----- the quest for diagnostic attributes of a fixed nature, whether of communities or of personalities, is appraaching a point of diminishing return, and that the course of wisdom lies in directing systematic research attention to the flow of events in a series of particular campaigns.

Thus a process approach innovation is composed of a set of stages or phases ordered along the temporal dimensions of their anticipated sequence.

Many recent studies have concentrated on the exact nature of these sequencial stages in the process. Process consists of a bundle of related events flowing through time.

Havelock and Huberman(1977) conceptualise an innovation process to contain five aspects: (1) a sequence of events over time, beginning with the recognition of the need for and the possibility of change and ending with the complete installation and acceptance of the change; (2) a set of people and institutions who are tied together in some way as the creators, planners, implementors, decision makers, and users of the innovation; (3) a series of transformations of ideas and resources into materials, practices, institutions and actions; (4) a problem-solving sequence in which needs are recognized and defined as problems, and in which solutions are subsequently discovered and applied to those needs, leading to their satisfaction; and (5) a temporary system which is (a) composed of many integrated elements, a system which has (b) a recognizable input, through put and output subprocesses, a system (c) composed of people and institutions, organized usually on a temporary basis to get the task done, and finally (d) a system of functions and actions interrelated to solve problems around a focal need area.

As a system, an innovation process is not only temporary but it is also extremely open and incomplete; it will, therefore, be very difficult to achieve any level of equilibrium. For this reason, it is usually quite vulnerable to changes in the social environment and can be destroyed by the sudden loss of some elements or the sudden intrustion of others. As a 'significant new effort' it arises quickly and dramatically, often inspiring intense hopes and fears in those affected by it. But hopes may die prematurely, long before it has had a chance to show its benefits. Indeed, it is the fragility of the innovation process as a system which makes knowledge of how it works in different settings very important. There are so many ways in which an innovation project can fail that only through careful and expert planning of the innovation process itself can the innovator be reasonably sure of putting together and maintaining a functioning system.

Gross et al.,(1971) viewed the innovation as an unfolding process consisting of stages in which characteristic factors not only appear in greater or smaller degree, but also in a certain order of occurrence.

Rogers and Shoemaker(1971) presented a conceptual model consisting of four functions or stages of the innovation-decision process.

A Model of Innovation-Decision Process:

1 Knowledge: The individual is exposed to the innovation's existence and gains some understanding of how it functions.

2 Persuation: The individual forms a favourable or unfavourable attitude towards the innovation.

3 Decision: The individual engages in activities which lead to a choice to adopt or reject innovation.

4 Confirmation: The individual seeks reinforcement for the innovation decision he has made, but he may reverse his previous decision if exposed to conflicting messages about the innovation.

The authors mentioned that the communication source and channels provide stimuli to the individual during the innovation-decision process. The typical individual gains initial knowledge of the innovation mainly from cosmopolite and mass media channels. At the persuation function, the individual forms his perceptions of the innovation from more localite and interpersonal channels. An innovation may be adopted at the decision stage in the process and be used continuously or rejected at a later date (a discontinuance). A discontinuance may be due to the innovation's replacement by an improved idea or to disenchantment with the innovation. The new idea may be rejected at the end of the process but adopted at a later date due to changes in how the individual perceives the innovation.

Continued information seeking often occurs throughout the confirmation function, because the individual seeks to reinforce his decision. Sometimes, however, contradictory to the innovation decision, messages reach the individual and this leads to discontinuance or later adoption.

Unruh and Alexander(1970) classified the innovation processes (that is, the ways in which innovations are introduced utilized and studied) based on the view that these processes may be arranged on a continuum. The adoption of a single innovation for some particular purpose at a particular time is seen at one end of the continuum, and a systematic, continuing research and development or systems approach to innovation is seen at the other end:

The single innovation approach	Continuing research and development, systems approach

Between these extremes they placed five other approaches to innovation, classified roughly in terms of the twin factors of scope and continuity. Thus the position of an approach on this continuum does not describe its general virtues the goodness of a process can be ultimately determined only with reference to its appropriateness and efficacy in a particular situation. Obviously, approaches at the left end of the continuum are not as likely to effect lasting and continuing change as those at the right end. Yet the single innovation approach may be the entry point for an eventually organized programme of educational change.

Similarly, any one of the approaches may lead to another, so that this classification is best regarded as one that categorizes particular approaches at particular times and not as a description of a school's or a district's long time approach to educational change.

The history of secondary education, indeed of education in general, is replete with instances of the adoption of single innovations. The process is simple: some dissatisfaction or need for improvement is identified, and a new practice is instituted to meet the need. In all too many instances there is little study of alternative practices and even less provision for evaluating the effectiveness of the innovation in solving the problem.

However, a considerable refinement of this procedure amounts to a single phase of a research and development approach; the steps described by the acronym-IDEAS.

I - Identify needs for change.

D - Determine possible new practices to meet needs.

E - Evaluate in a tryout situation a chosen new practice (the innovation).

A - Activate the findings of the tryout, reject, modify, and tryout again, or adopt.

S - Stimulate the continuation of this process.

Zaltman, Duncan and Holbek(1973) conceptualized innovation as a process of temporally linked stages, the first sub-process is initiation, which is a response to a performance gap. According to them, it is useful to subdivide the innovation process, from the point of view of the individual adoption unit, the two resulting stages can be termed "initiation" and "implementation". An example of this type of study is that by

Walker(1969). In studying diffusion of innovation among the United States, he focussed on "---one of the most fundamental policy decisions of all: whether to initiate a programme in the first place".

On the other hand, the stage of implementation, the actual mechanics of managing the changes that innovation may imply. During recent years, most theorists who apply the process approach to the study of innovation with respect to multi member adopter units have conceptualized the stage of 'initiation' in terms of problem solving or decision making. March and Simon (1958) take as their starting point what is known as the problem-solving process at the individual level, then introduce organizational considerations.

Thus before any innovation can take place or be adopted, potential adopters must be aware that the innovation exists and that there is an opportunity to utilize the innovation in the school system. A major question here is whether the awareness or knowledge of the innovation comes first, followed by the development of a need to innovate or vice-versa. Does the awareness of an innovation stimulate a need to adopt, or rather does a particular need that the system increase the search process with the result that more awareness of their potential innovations is increased?

Rogers and Shoemaker(1971) in their comprehensive analysis of innovations conclude that ---- research does not provide a clear answer to this question of whether awareness of a need or awareness of an innovation (that create a need) comes first. The need for some innovation, such as a pesticide to treat a new crop pest, probably comes first. But for other new ideas, the innovation create the need.

In considering the effect of attitudes on the innovation process, once search has taken place and there is some motivation to change, (Zaltman and Brooker, 1971, Rogers and Shoemaker, 1971) the attitudes of members have toward an innovation are important.

Mohr's(1969) work in health organisations has also indicated that the role of attitudes toward the innovation should not be over emphasized in excluding other variables. Mohr concludes that it is necessary to consider the interaction between the variables of motivation to innovate and resources available in predicting innovation (Mohr, 1969).

In the decision making stage, the information concerning the potential innovation is evaluated. If the members are highly motivated to innovate and/or their attitudes are favourable regarding the innovation, there is likely to be favourable attitude to implement the innovation. On the other hand, if there is not much motivation to innovate and/or the attitudes towards the innovation are not favourable, there is a greater likelihood that the innovation will not be implemented.

In the implementation stage of the innovation process is concerned with the actual utilization of the innovation by the members.

Zaltman, Duncan and Holbek(1973) viewed the process of innovation is probably "circular" in that each solution or outcome of the process 'feedback' into the adoption unit in the form of new problems (perceptions) which require attention.

Before adoption of the innovation, the members may 'try' the innovation through vicarious experience (Bandura, 1969), which results similar to those of personal testing.

Evaluation is a necessary step following a trial, the members review the pros and cons of continued or increased use. Although it is quite likely that informal or very brief evaluation follows each stage in the adoption process to review the situation to that point, a formal evaluation is probably necessary before a formal commitment is made.

The stage of adoption represents a level of commitment by the individual with repeated or continued usage. This is also a stage with cognitive, effective and behavioural components. The cognitive component at the adoption stage contains beliefs based on personal experience from the trial stage. The stronger the adoption commitment that is made, the more central will be the value state achieved. An innovation that would enable the individual to achieve some deeply held goal would indeed be difficult to replace.

The alternative to adoption, at this point is discontinuance or rejection. Unsatisfactory outcomes in the process prior to this stage may result in the achieved value stage being negative.

Zaltman and Duncan(1977) hold the view that components of rejection are the same as those of adoption and achieve similar intensity. Many resistance factors operate throughout the process of innovation in the system.

Discontinuance ~~is~~ a common phenomenon, varying with the nature of both the innovator and the adopter.

According to Rogers and Shoemaker(1971, P.115) there have been relatively few researches designed to investigate the nature of discontinuance. Even from the six or seven studies in which innovation discontinuance were measured one gains the general impression that the discontinuance variable was almost serendipitously chanced upon, rather than planned as a main objective of the study. Most of the discontinuance researches are panel studies in which the adoption and later discontinuance of innovation are measured at two points in time for the same individuals. But surprisingly the high rate of discontinuance for many innovations is concluded. In fact Leuthold(1967), concluded from his study among a statewide some of Wisconsin farmers that the rate of discontinuance was just as important as the rate of adoption in determining the level of adoption of an innovation at any particular time. A similar experience has been reported in India where the rate of discontinuance of birth control loops has been higher than the rate of adopters.

Zaltman, Duncan and Holbek(1973) reported that there is very little in the published literature concerning the discontinuance of innovations in organizations or even of innovations intended solely for use by individuals. The innovation may fail to perform adequately even when all factors are supportive and thus be discontinued on a performance basis only. Continued conflict among components of the organization over the innovation may be disruptive to the point where the value of the innovation falls below the social conflicts it engenders. Also, as time goes by, after the initial implementation period, there is increased opportunity for the long-range ill effects of the innovation to become evident. As these events become obvious and accumulate, resistance may become stronger and more widespread.

An innovation may be discontinued because of personal changes. The most noteworthy reason perhaps is that it is a way to make their presence felt and prevent the development of interest groups and power centres forming around these recent changes.

Havelook(1969) holds the view that the possible outcomes of the innovation process represents a vast over-simplification. Even one or the other of these alternatives seems to be a clear cut final phase. Neither need represents a state of equilibrium. Adoption may be followed by discontinuance, discontinuance by readoption and rejection by later adoption. A further possibility is partial adoption, or adoption in a revised form.

Rogers(1962) has devised an "Innovation Tree" to illustrate the outcomes of the adoption process for several innovations (see table No.1). According to Rogers and Shoemaker(1971) there are atleast two types of discontinuances: Replacement and Disenchantment. A replacement discontinuance is a decision to cease, using an idea in order to adopt a better idea which supercedes it. In a rapidly changing culture there are constant waves of innovations and each new idea replaces an existing practice which in its day was an innovation too. A disenchantment discontinuance is a decision to cease using an idea as a result of dissatisfaction with its performance.

1.4 How Schools Adopt Innovation

Innovations and experiments were always welcome in the olden times and they were always being workedout according to the time and circumstances prevailing at that particular period of social life. Without our knowledge they have existed for all the time and without our being conscious about the processes, there have been experimentations.

The introduction of an educational innovation depends upon the agency initiating the innovation. The heirarchial structure includes the teacher in the classroom working under the principal in a school. The other influencing factors are the education department having administrative control over the school, the college of education where at times new ideas emanate, society, parents and neighbouring schools.

These are the agencies which are very much associated with the adoption of innovative practices of the school in an area.

The Education Department, in the Indian Education Context, is an authentic source of innovation for schools. The agent of the education department who functions in direct relationship with schools in the matters of innovation is the District Educational Officer. The department issues circulars and directives for implementing innovations in schools. The District Educational Officer who plays normally the role of a change agent possesses the supervisory power also. He can exercise the power-coercive means to make the schools adopt the innovations he recommends. If he plays his role as a change agent at a low profile, the schools under his control may lag behind in the adoption of innovations. Thus the District Educational Officer as an agent of the department machinery can influence the adoption of the innovation in schools.

It is strongly believed that real innovations are born only in the classrooms. Teachers practising in classrooms feel the need for new instructional methods, new approaches, new organisation and programmes. Based on this need, innovations are born in the classrooms. There is an equally strong view that only an outside agency can stimulate the teachers to innovate and adopt. This outside agency may be the District Educational Officer, the teacher's college, the professional organisation, or a state level organisational agency. Sometimes, parents also exerts a direct influence on the adoption of a new type of instructional programme. 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 and the society through their children.

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 some thing assigned to them but born out of conventions and traditions.

Having learnt about a successful practice of an innovation in a neighbouring school, the school principal with the core group in the school deliberate upon the new practice. Afterwards they approach the local college of education (The Extension Wing) or they meet educational experts, or they pay a visit to the school where it has been practised. As a result of a series of meetings, a new programme of innovation would be worked out. This programme would be placed before the teachers and discussed threadbare. It would be decided to tryout the programme. The teachers involved would be given adequate support by other teachers. The pupils and parents too are taken into confidence. All precautions are taken in the beginning.

The programme would be started. This would be done only with the approval of the District Educational Officer. The school decides to maintain one set of records for evaluating the experiment. Because of the involvement of teachers and parents, the scheme would have the advantage of good support. Parents will see the educational benefits of the scheme. The innovation would be adopted on a large scale. Necessary modifications would be made on the basis of experience. Finally the innovation will get institutionalised(as a result of the success). The confidence generated will have a far reaching impact on the staff who have mustered adequate courage to venture bold programmes in other areas too. Here the pupils' reactions and teachers' attitude towards the innovation form the basis for the evaluation of the innovation. Outside the school, parents and public reactions are the criteria for the successful adoption of an innovation.

1.5 Why Schools Discontinue Innovations

An attitude of experimentation and innovation must gain wide currency, wide enough to become a movement. If programmes however laudatory, are not checked for their assumptions, no coherent system is likely to emerge. They will end up with half-hearted attempts doomed to fail even before they are begun.

One striking similarity to be found in the case histories of many failed innovations is the absence of a comprehensive plan for implementation. Many attempts at innovation fail. One important reason is that the advocated innovation is simply not functional enough; that is, it does not do what it purports to do. The question that naturally emerge from such discouraging results is why do innovations with so much promise fail? Why they may not perform adequately once committed to do? These are the burning problems of present educational system.

In general, literature on the evaluation and assessment of school innovations suggests that fatal weakness occur during the early stages of implementation. These weaknesses are often related to the effect of role changes on students, teachers, and administrators. Since innovations usually require unlearning of traditional roles and a learning of new ones, uncertainity, concern and even fear can be part of an innovator's early feelings (Joseph and Carol, 1977). These concerns and anxieties arise from a need to fulfill new roles and the competencies associated with them.

Joyce(1969) refers to this as "the need to feel 'competent'. Every innovation, every change in fact demands adjustment by learning new behaviours.

Pellegrin(1966), speaking in an educational context, notes that barriers to the flow of new knowledge to an organisation may stem from weakness in channels of communication and weakness in the procedure for disseminating new educational ideas.

Technological innovations can be threatening at all levels. of the corporation, particularly to top management for whom the cumulative effects of innovation may be overwhelming (Schon,1967).

Havelock(1970) suggests that local pride may also be an obstacle. The idea that the organization is unique or special in some positive way leads to the belief that alternations in the organization would dissipate this uniqueness. Thus a deaf ear is turned to new knowledge, which may indicate that change is necessary. This has been demonstrated in studies of scientists in organisations (Allen, cited by Havelock, 1970) and in a study of administrators in business firms (President's Conference, cited by Havelock).

Rogers and Shoemaker(1971) stated that the discontinuance may come about because the innovation is inappropriate for the individual and does not result in a perceived relative advantage over alternative practice or the dissatisfaction may result from misuse of an innovation that could have functioned advantageously for the individual.

Discontinuance may be caused by lack of integration of the innovation into a system. Watson(1966) describes to make a committment to a period of adaptation as a possible cause for failure of innovation. Barnett(1953) suggests that discontinuance may take place when an innovation has untoward consequences for related aspects of society.

Havelock(1969) attributed the failure of innovation to an inadequate consideration of various problems of phasing & timing.

Buch(1969) found that a well laid out strategy which foresees the souces of resistance and preplans to win over the vacillators and to neutralize the active resisters is needed for successful installation of innovations. Those who are to be directly affected by the innovation have to be involved right from the beginning, otherwise they will become responsible for discontinuance of any new practice in a system. Unless the teachers are prepared psychologically and equipped academically for the new programme, they will invariably work actively for the failure of the new idea.

No innovation of a major nature can be introduced in schools without the support of the District Inspector of Schools. Parents can provide a block against innovations in schools, when they have not been taken into confidence. Inadequate planning, lack of financial support and failure to take into account the nature of the system into which the innovation is being introduced may become barriers to innovation. Innovators may underestimate the institutional barriers in their initial eagerness to introduce change which are long overdue. Institutional barriers may take the form of lack of resources, resistance to new ideas of practices on the part of those who are likely to be affected by the change, lack of administrative support, isolation and poor quality of materials.

Disruptive effect of individual personalities which result from an appropriate selection of personnel to lead and implement projects and from inadequate and inappropriate motivations and rewards may also be a powerful barrier.

Havelock and Huberman(1977, P.229) observes that inadequate planning, inadequate consideration of implementation, poor connections and confusion about objectives seem to go together. Many projects pay little heed to the lessons about the innovation process, particularly to the fact that innovation is a problem of system change and system building which must start with a thorough appreciation of the existing connections and the existing bases for social cohesion and organisation.

They suggested that these barriers can be avoided by careful planning for implementation by building and maintaining connections with key persons (Management, District Educational Officer, Experts and other resources) and developing group strengthening connections and creating 'synergistric' effects. The psychological issues cannot be ignored in the planning of innovations and considerable care needs to be taken to select people who are both motivated and sensitive to others. It also should be noted that people will not contribute their best if they are not rewarded appropriately for their efforts.

1.6 The Problem

In India, after independence, the developments in education are comparatively faster. A number of innovations are being proposed to breath new life into education. After establishment of extension services Movement in 1961 and starting of National Council of Educational Research and Training and Extension Centres.

But the schools are impervious to innovative ideas. The history of Indian Education during the last 30 years is a history of innovative ideas which were floated from above. But many of these innovations failed to take roots in Indian Schools. The pace of development of innovation adoption in our schools has been very slow and has left the feeling of ineffectiveness, [illegible] and frustration.

What would be the reasons for the failure of the attempts to introduce innovations in schools? What are the factors that are associated with the successful introduction of innovations in some schools that are not present in other schools where the innovations have not proved successful? The ACEID (Asian Centre for Educational Innovation and Development) recommends second generation process studies to be undertaken. Do schools where innovations have been successfully installed adopt varying processes from other schools where innovations have been introduced but are not carried through successfully? Are the processes adopted by successful schools the same or different? If different processes could lead to successful installation of innovations, would it be possible to extract a general common model that explain the varying processes? Are the differences in successful processes only situation-bound or do they differ basically in their approach?

These are a few of the many important questions that researches in educational innovations confront with. The larger task of finding solutions to the promotion of innovation in education has become the main concern of educational research today. Basically the focus has been on how the process of an innovation affects and is affected by the system's ecology in its attempt to institutionalise an innovation.

Today the pertinent issue of the administrator is to plan the strategies the procedures and techniques used by individuals and groups at different levels of the educational system to reach desired objectives, to develop inbuilt mechanism to invent, diffuse and install innovations in educational institutions and to make these institutions "self renewal".

The present study is an attempt to study the processes in adoption and discontinuance of innovations in schools.

1.7 The Present Study

The present investigation is "A study of processes in adoption and discontinuance of innovations in schools". The study of process variables has not so far been done in education in India.

Rogers investigated more in the field of agriculture and medicine than of education. Havelock and Huberman have developed theoretical frame works in education. The CERI studies are molecular in approach confining to selected case studies. Zaltman and Duncan concentrated on planned strategies. CASE, true to the tradition of study on teaching, concentrated on presage and context variables initially rather than on the process variable that are more important. The present study, therefore, takes a process approach involving secondary schools in Gujarat.

1.8 Chapter Scheme

Chapter I discusses some of educational crises with special reference to self renewing schools, the need for change orientation of schools and processes of adoption and discontinuance of educational innovations in schools and finally arrives at the specific problem of the study.

Chapter II attempts to evolve a conceptual model of processes of adoption and discontinuance. It makes references to detailed description of change models conceptualised by theorists and as abstracted from empirical evidences.

Chapter III reviews the previous studies on Innovations in India and abroad. Process of adoption and discontinuance studies made are abstracted. The researches on Organisational Climate of the school, Leadership Behaviour of the Principals and Teacher Morale of Schools briefly described.

Chapter IV describes the plan of the study and the procedure adopted. The objectives and the scope of the study are specified, the research design described and the construction of the tool explained. The sampling technique, data analysis and other relevant methodological questions are answered in this chapter.

Chapter V deals in detail the analysis of data. The data analysis starts with simple descriptive statistics and differential studies, the order of arrangement of 30 schools enclosed. The format of each school innovation adoption and discontinuance processes profile explained and the relationship of OCDQ, LBDQ, and TM with process of adoption described. Finally the process profiles of types of schools enclosed and barriers to change are briefly described.

Chapter VI - Chapters I, II, II and IV are reviewed. Summerises the findings. Suggestions are pointed out and avenue open for further studies are also identified.