CHAPTER - VI

REVIEW, MAJOR FINDINGS, SUGGESTIONS

6.0 An Overview of the Study:

The acceleration of technological changes far exceeding the speed of change in other social institutions, proclaims increasing recognition and growing concern about institutional lag in adapting to the changing conditions. While science and technology have multiplied the speed of change in all walks of life, education operates still in traditional ways. The conscious efforts to introduce change in education were not as successful as they had been expected to be. Change depends upon adoption of innovations. 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 the 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, isolation and frustration. 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 and to make these institutions "self renewed".

The Previous Studies reviewed are phenomenal. They do not probe deep into the process of the innovation phenomenon. They do not analyse the 'how' an innovation, how that ensures the successful adoption of the innovation or the how that portends the failure of the innovation leading to discontinuance. Innovation studies have reached the second generation and the phenomenon has lost its innovativeness, the novelty, the charm of its nascent beauty. The process, the how of it, has become the central concern so that innovation can be planned and installed with high probability of success. Process studies, however, are rare, particularly in the Indian context.

The Rogerian studies simply identified the stages of adoption and do not develop into the dynamics of these stages. The Havelockian strategies are only second line theories and do not describe the strategies and tactics as studied empirically. The Bennis tradition is also conceptual rather than concrete. Operational strategies at empirical level are scarce and the one in the Indian context is also global in its approach.

Discontinuance of innovations is largely a disregarded area of the innovation researches. The innovation trees simply count the innovation discarded. As with continuance, with discontinuance also, the studies done so far concern themselves with description or delineation of associated factors. Process studies alone will help us plan better for changes. Studies on the dynamics of change naturally lead to the manipulative studies of the strategies and tactics through which the strategies suitable to varying situations can be determined.

The Present Study is an attempt to investigate the process of adoption and discontinuance. It is hoped that the present study would also give us clues to manipulate the tactics and strategies to make adoption successful. The present investigation is, "TO STUDY THE PROCESSES IN ADOPTION AND DISCONTINUANCE OF INNOVATIONS IN SCHOOLS".

The investigator has accepted the definition given by the APEID (Asian Programme of Educational Innovation for Development, 1977) in this study. It is as follows - "The idea or the practice need not be totally new, its efficacy and potentiality in a new context are the main criteria used for labelling it as an innovation".

To achieve the set objectives, four instruments i.e. (a) Interview schedule (semi-structured), (b) Evaluation schedule on Innovative Process for Adoption of an innovation, (c) An Evaluation schedule for Discontinuance of Innovation, and (d) Barriers to Change Check-List have been constructed by the investigator. In addition to these tools, three tools have been adopted to study the contributing factors to the school effect. They were (a) Organisational Climate Descriptive Questionnaire (OCDQ) (Halpin and Craft), (b) Leadership Behaviour Descriptive Questionnaire(LBDQ) (Halpin and Craft), and (c) Teacher Morale Inventory of Dekhtawala.

The data were collected by the investigator through personal visits. The interviews were conducted on principals and Questionnaire were administered to the teachers. The sample of the study consisted of thirty innovative higher secondary and secondary schools situated in urban area, all over Gujarat State. The sample chosen for this study was a purposive sample comprøising twenty private schools, four central schools and six Missionary schools. This was a normative survey. The data were collected from thirty principals and one forty four post-graduate, graduate trained teachers and graduate untrained teachers working in those thirty schools.

The data collected through semi-structured interview schedule and questionnaire and Barriers to Change(Check-list) were analysed through statistics and description. The 't' test was applied to each process variables in order to investigate the significance of the difference of the means of adoption and discontinuance. The data collected through OCDQ, LBDQ and TMI were analysed using the statistical techniques suggested by the authors of these tools.

6.1 Major Findings:

The major findings of the study are represented under the heads - process of successfully adopted innovations, discontinued innovations, specific factors for discontinuance, findings from differential studies and barriers to change.

6.2 (a) Findings from the process of the Successfully Adopted Innovations:

i. Problem Awareness Stage:

a) The process score of this stage is 65%.

b) The sources of awareness were the principals, teachers, pupils and parents.

ii. Search for Solution Stage:

a) The process score of this stage is 40.7%.

b) Teachers received ideas in order of preference from within the system, NCERT, Journals, Colleges of Education, other institutions and experts.

c) Personal visits to schools, meetings with people were more common than correspondence.

d) Maximum time lag was oneyear and minimum was one week.

iii. Knowledge about Innovation Stage:

a) The process score of this stage is 81.7%.

b) Majority of the principals(95%) expressed that they had clear understanding about the innovation and all the principals had framed the objectives.

c) They approached other institutions and colleges of education for clarity if they had doubts about the process.

d) Majority of the innovations (90%) happened to be proven educational ideas.

e) Most of the principals(80%) had treated the innovation adoption as an experiment.

f) All the innovations except one, suited to the existing social systems.

g) Majority of the innovations(80%) were quite independent ones.

iv. Persuading Influences Stage:

a) The process score of this stage is 46.5%.

b) It was found in the order of preference, that the staff members, pupils, parents, principal and officials had persuaded for the adoption of innovations.

v. Decision Making Stage:

a) Process score of this stage is 52.5%.

b) Majority of the principals(75%) had consulted and discussed with the staff and students before implementation of the innovation.

c) Thirty five percentage of staff had showed resistance.

d) The time lag ranged from one week to 18 months.

e) All the principals had weighed down the profits and costs of the innovation in the context of pupils' achievement and school progress.

vi. Adoption Stage:

a) The process score of this stage is 43.6%.

b) 57% of the schools had gone for trial run and 43% of schools did not go for trial run.

c) Mostof the teachers and students had a clear idea about the innovation.

d) Majority of the innovations (90%) adopted were worthy and feasible.

e) It was found that 85% of the schools had not faced any serious problems during the period of experimentation.

f) Centpercent of the principals got help and encouragement from their concerned managements.

g) It was found that 65% of the principals found the change in behaviour of all those involved in implementation of the innovation.

h) Ninety percent of the principals stated that the staff members were cooperative in bringing about the change.

i) Fifty percent of them had received recognition for their adopted innovation.

j) Seventy five percent of the principals were satisfied with the performance of the innovation.

vii. Evaluation:

a) The process score of this stage is 64.2%.

b) Most of the schools(90%) had evaluated the adopted innovation through staff meetings records and parent teacher associations and it was found that the results were satisfactory.

c) Ninety percent of the principals described that the adoption of innovations resulted in better pupil academic achievement, most healthy atmosphere, more effective organisational climate, increased parents' interests in school activities and in teachers' punctuality.

d) The time taken from initial stage to successful adoption of innovation was two to five years.

e) Twenty percent of the principals were interested to diffuse the knowledge about the innovation to other institutions. But almost all the principals had reported about the new practice to the DEO's Office through correspondence, through seminars and personal visits. Only two institutions had published in journals and newspapers their new practice.

f) Most of the managements(75%) were satisfied with the new practices and they encouraged the principals in bringing about change.

g) It was found that 70% of schools had received appreciation and certificates from the authority (DEO's Office).

h) The reactions of parents and public regarding the new practice were satisfactory.

6.3 Findings from Discontinued Innovations:

i. Problem Awareness Stage:

a) The process score of this stage is 60.8%.

b) The main sources of awareness were principals, teachers, students and parents.

ii. Search for Solution:

a) The process score of this stage is 32.5%.

b) Most of the ideas were self generated ones i.e., suggested either by the principal or by the staff members.

c) It was found that most of the schools' linkage with the resource centres like NCERT, Extension Departments, and educational experts was very weak.

d) Maximum time lag was six months and minimum was one week.

iii. Knowledge about Innovation Stage:

a) The process score of this stage is 63.3%.

b) Seventy percent of the principals expressed that they had clear idea about the innovation and 30% of them confessed that they had some doubts. But it was found that they did not approach any resource centres. It was found that majority of schools could frame the objectives and they believed that they would help in achieving the objectives of the school.

c) It was found that some innovations were not suited to the social conditions and norms of the society.

d) The results of the innovations were visible.

e) Fifty percent of the discontinued innovations were found to be dependent i.e. required great many changes in the school functioning, whereas the other 50% were independent.

f) It was found that these discontinued innovations had brought little prestige to the respective institutions.

g) It was found that 70% of the discontinued innovations were not liked by the pupils.

iv. Persuading Influences Stage:

a) The process score of this stage is 36.5%.

b) It was found that the staff members pupils and parents were responsible in persuading the principal for implementation of these innovations.

v. Decision Making Stage:

a) The process score of this stage is 39.2%.

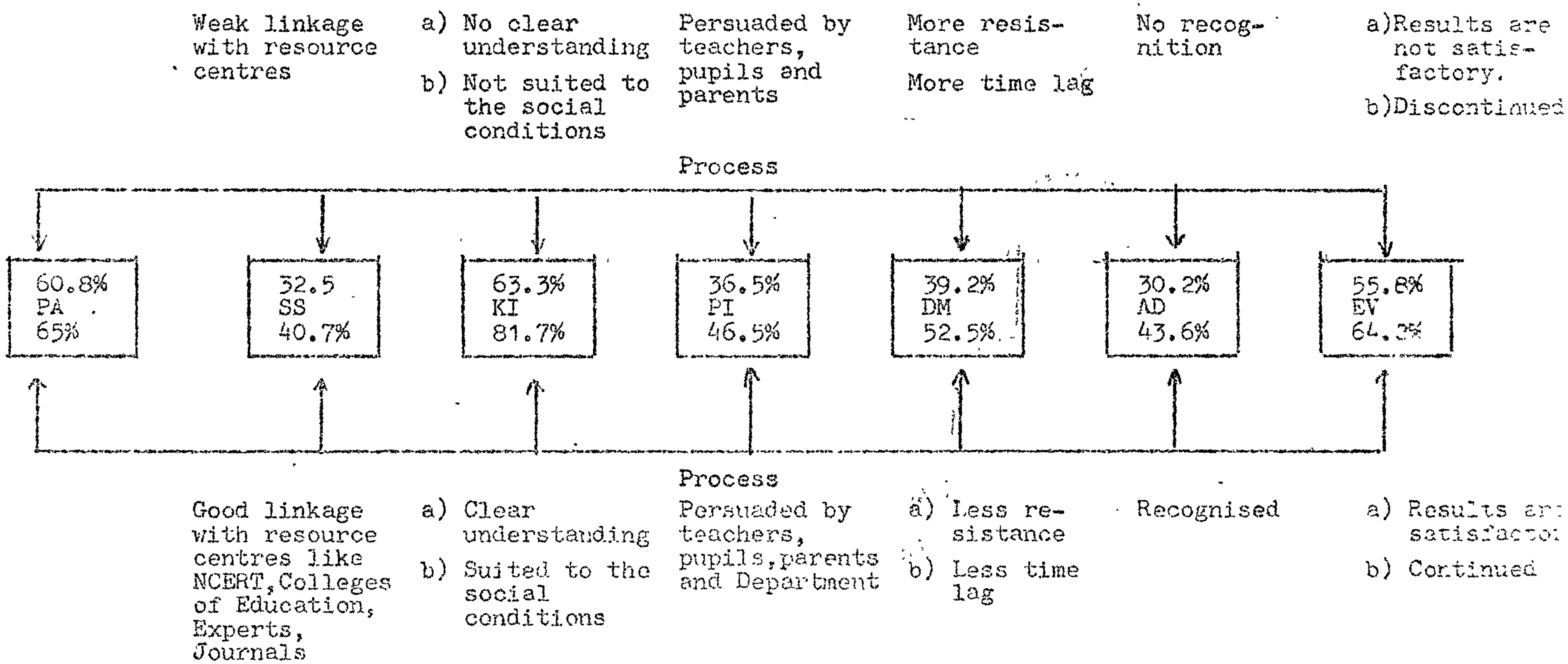
b) It was found that except in a few cases, the principals had consulted the teachers, students and even parents(some times) before taking a decision to introduce the innovation.

c) No single innovation ordered by the DEO was found to be discontinued.

d) It was found that most of the principals discussed about the innovation in the staff meetings. In majority of the cases resistance was observed. The principals tried to convince the dissidents by explaining the need for the implementation of the innovations. But the dissidents did not render their cooperation in carrying out the innovation.

Table No.6.1: A Conceptual Diagram

Discontinuance



Adoption

Stages PA = Problem Awareness
SS = Search for Solution
KI = Knowledge about Innovation
PI = Persuading Influences
DM = Decision Making
AD = Adoption
EV = Evaluation

e) It was found that the time lag between decision making and introduction of innovation was some what lengthy. The reasons given vary from institution to institution. In some schools it was due to planning and execution whereas in other schools it was due to late receipt of equipment. In a few schools lack of enthusiasm among the adopters caused the delay.

f) It was found that the authority weighed down the costs and profits of the innovations in the context of pupils achievement, school discipline, and progress.

g) It was found that all the administrators had considered the possible reactions from pupils, teachers and parents.

vi. Adoption Stage:

The process score of this stage is 30%. Before implementing the innovations 60% of the 15 schools had conducted trial run and the remaining 40% had introduced the innovation directly into the system.

vii Evaluation Stage:

a) The process score of this stage is 55.8%.

b) Every trial was being evaluated thoroughly through records, staff meetings and parent teacher associations.

c) It was found that 80% of the principals as well as adopters were not satisfied with the performance of the innovation.

d) It was observed that they had formulated an opinion that the innovation would not work in their respective institutions.

e) Almost all the innovations had been discontinued.

6.4 Specific Factors Accounting for Discontinuance:

The following factors were found to be operating where discontinuance results:

1. Dissatisfaction with its performance.

2. Divided groups among staff members.
3. Lack of sufficient finance and financial resources.
4. Lack of support from the society.
5. Failure to achieve the set objectives.
6. Want of convincing source.
7. Lack of adequate support from parents.
8. Lack of understanding among staff members.
9. Extra load of work involved.
10. In appropriateness of the innovation in the school situation.
11. Lack of co-ordination among the teachers in planning the programme.
12. Lack of whole hearted cooperation from teachers.
13. Lack of sustained interest among teachers.
14. Inadequate planning and lack of proper organisation.
15. Lack of integration of the innovation into the system.
16. Inadequate physical facilities.
17. Practice of too many innovations at a time.
18. Frequent interruptions and di~~s~~gressions.
19. Unwillingness on the part of parents to allow their wards to stay in the school after school hours.
20. Most unsuitable timings.
21. Sudden transfer of teachers.
22. Lack of required knowledge about innovation.

6.5 <u>Findings from Differential Studies</u>:

i. There was no significant difference between the mean score of the privately managed schools, central schools and missionary schools as the 't' values 1.38, 1.06 and 1.19 respectively were not significant.

ii. The process of adoption in schools where the principals were of the HH type in leadership differed from the process of adoption in schools where the principals were of the LL type. The same pattern can be found between HL and LL type leaderships and between LH and LL types.

iii. The process of adoption was the same with High, Average, and Low levels of Teacher Morale.

iv. There was no significant difference between open climate, controlled climate, and patternal climate with regard to the process of adoption. But the open climate differed significantly from familiar and closed climates in the process of adoption.

v. Autonomous climate did not show any significant differences with other five types of climates.

vi. Controlled climate did not show any significant difference with open, autonomous and patternal climates. But this controlled climate showed significant difference from the familiar and closed climates.

vii. Familiar climate did not differ significantly from paternal climate.

viii. Paternal climate did not differ significantly from closed climate.

6.6 Barriers to Change:

6.6.1 Barriers to change as checked by staff in private aided schools:

Want of time, heavy syllabus, inadequate resource of magazines and journals, absence of suitable agency to train the staff for professional growth, lack of incentives in the system, parental interference (township schools) fear of additional work, lack of appreciation from the above, vested interests of staff outside the school and lack of proper training among the staff.

6.6.2Barriers to change as checked by Central Schools:

Want of time, heavy syllabus,fear of additional work, transfer of teachers, lack of appreciation from the authority, lack of guidance from higher authority, want of suitable members to inspire the other staff, lack of resourcefulness of the principal, negative attitudes and tendencies of pupils and the innovations imposed from above.

The barriers indicated by the central schools were linking with the resource system, imposition from above without considering the real need for its implementation.

6.6.3 Barriers to change as checked by staff in Missionary Schools:

The respondents from the missionary schools have indicated that the following barriers exist in their schools. Most of the above mentioned barriers in the private aided and central schools have also been mentioned by these respondents. In addition to them, the following have also been mentioned as barriers to change.

No healthy relation among staff and the leader, lack of integration of the innovation into the system, inadequate resource system, inadequate staff members, non-availability of instructional material, bossing attitude of the principal, lack of tradition in the system, influence of the neighbouring institutions, and lack of co-operation from staff members.

The barriers like want of time, heavy syllabus, fear of additional work are the frequently repeated barriers by respondents.

6.7 Suggestions:

The general suggestions for the Teachers, Principals of schools, Planners and Policy makers for developers, that is, the resource agencies are put forth in this section. Teachers should establish adequate linkage with the resource systems. They should become aware of the innovation policies and the innovation structure and understand their role in the innovation process. They need to maintain dialogue with colleagues, opinion leaders and change agents, and develop the capacity to make correct decisions in the selection of innovations and planning or coherent strategies. They should also make continuous process evaluation to monitor the innovation process to success. The adopters should attend summer institutions, refresher courses in methods, and workshops, to learn latest trends in education in order to cope with the changing needs of the society. For upward flow of communication with regard to innovation adoption, teachers should develop rapport with pupils and parents.

The Principals of the schools should establish communication with resource centres like NCERT, SCERT, colleges of education and extension centres. They should arrange seminars by inviting experts in order to enrich the teachers' knowledge. The principals have to select those innovations which are compatible with socio cultural values and beliefs. The principals should know the innovation to accomplish broader purposes than those originally envisaged. They should launch some programmes to improve the attitudes or skills of the innovating group members which may affect their later innovativeness; spread or diffusion of the innovation to other systems has to be done. By giving incentives like promotion or advancement of practioners x who have backed the innovation contribute favourably to the system effect. The authority should realise that their success always positively relate to their efforts in evaluating the innovative practices. The authority should be resourceful by knowing latest trends in the field and by having constant touch with the resource centres. This helps to maintain the interest of the adopters in the process of planning for adoption. The authority should be dynamic in maintaining the free flow of communication between the adoption and decision units. The principals should be aware of the fact that the over adoption of the innovation leads to discontinuance. They should be very careful in framing objectives and planning, or, it may result in discontinuance.

The Educational authority may arrange programmes for informal personal contact for teachers at secondary level once in a month to discuss academic problems under the Secondary Education code. Once in a way, if these meetings are held in a resource system agency centre (e.g. the college of education, SCERT, University Department, or other research centres) contact with resource system can also be had.

Such contacts with resource agencies will facilitate simulation of the users' problem solving process by resource persons and simulation of the resource system process by the user, the broad outlines of the management of innovation may be included in the teacher education curriculum and the teachers in service need be oriented towards the innovation process at the resource level and made familiar with the problem solving techniques. A co-ordinating agency like the state board of teacher education may help the different resource centres collaborate with each other.

A national innovation policy which can redefine the nature, the objectives and the functions of education in its social, economical and cultural context has to be consciously evolved and consciously adopted. The National policy on education in India(1967) is not explicit on the innovation policy. The Asian Programme of Educational Innovation for Development (APEID) and its institutional component, Asian Centre of Educational Innovation for Development(ACEID) at Bangkok is an attempt at policy development at the continental level. NCERT in India is an Associate Centre and its ERIC (Educational Research and Innovation Committee) occasionally releases policy statements and documents on research schemes and innovative programmes. The government should spell out its innovation policy and centralised organisations like NCERT, UGC, ICSSR should implement the innovation policy.

6.8 Suggestions for Further Research:

A research investigation can never be exhaustive. It raises further problems, queries and issues to be tackled. It is hoped that the present study will encourage, stimulate and even provoke further research in the area of educational innovations. Some suggestions for such studies are presented below:

(1) Innovation in relation to the level of linkage with resource system, cosmopoliteness and professional awareness of the authority of educational institutions. (2) Resistance to innovation and its relationship to the type and sources of barriers in the system. (3) Case study of an innovation adoption process. (4) Various stages in the adoption process in relation to adopter categories. (5) School systems frequently need considerable pressure from outside to modify existing organisation and practice. (6) The attitudes and behaviours of directorate of education, principals, teachers and researchers should be dynamic in planning and execution of innovation practices.

6.9 Conclusion:

In this study the main focus was on the process dimension. The utility of this study is to enhance the success of adoption of innovations. For this, the dichotomous i.e. both adoption and discontinuance of innovation processes' study was attempted. The factors that promote the process of adoption and the barriers that lead to discontinuance has been studied in detail. The factors that facilitate and accountable to plan and instal with high probability of success of innovation have been highlighted. The processes of adoption and discontinuance have been empirically studied and the evidence, the study supplied, forms the basis for the innovation process model conceptualised. The study in its wake has raised many theoritical and empirical issues and they have been discussed under suggestions for further research. The suggestions derived from the findings of the study are of practical value in providing a frame work for decision making for the policy makers the researchers and the practioners of innovation.

Research is a continuous process. It never ends. Therefore, the study is not an end in itself. Why innovations are discontinued or what contribute to the successful adoption of innovation? To this question, the investigator has tried to find an answer. If a number of studies are taken on similar or same sample, more valid and generalizable findings can be arrived at. Can this be done? The answer is upto us.