CHAPTER III

REVIEW OF THE RELATED LITERATURE

At the preparatory and process stages of the present study, the researcher acquainted himself with the study reports and other literature relating to innovation and change. This was helpful in defining the limits and scope of the investigation, and in understanding the extent of work done by others in the past. Primary and secondary sources including books, journals, monographs, research papers, doctoral theses, reports of various commissions on education, abstracts, bibliographies etc. were examined to collect relevant information. This chapter gives a brief account of the literature reviewed for the purposes of the study.

1. Studies Abroad

Most of the early work on educational innovation was done at Michigan and Columbia universities. The pioneers in the field were P.Mort and Donald Ross. Mort found that change efforts in the American school system took 'extravagantly long time' to complete and maintained a predictable pattern. Almost a hundred years passed between the awareness of a need and the fabrication of an innovation and its complete diffusion- 50 years to evolve a new practice and another 50 for its

complete acceptance. In 1953 he predicted that society would soon witness new designs in education, springing from the hundreds of innovations generated during the previous half century. Ross reviewed 150 studies in the area of innovation and change and found that there was always a time lag between the recognition of an educational need and the adoption of an innovation to meet that need. More freedom to teachers and more funds were his prescriptions for promoting innovations in local school systems.

Periodic reviews of research on innovation and change in an interdisciplinary perspective include the contributions of Bhola (1965), Katz, Lewin and Hamilton (1963), Rogers (1962) and Ross (1958). Havelock (1973) made a comprehensive and epoch-making study, with major emphasis on education. Miles (1964) and Miller (1967) also conducted similar surveys of innovations in education.

Barnett (1953) found that the degree of congruence between an innovation and the adopter system influenced the latter's progress. Lippitt et al(1967) found the following to be related to constraints on innovations- (i) characteristics of the practice; (ii) Physical and temporal arrangement; (iii) Peer and authority relations; (iv) Personal attitudes. Lack of models in theory and practice; problems of changing an ongoing practice; lack of teachers' scholarship; and waste due to haste

were found to be inhibiting factors to the expeditious implementation of curricular change, by Alaxander(1967). According to Hoyle (1972) all barriers to change could be classified under attitudes, resources and organisational structure.

It was in 1947 that the term 'change agent' was first used in the sense of a person or agent related to the development, introduction and adoption of an innovation. The change agent's role has been the subject of study by many researchers, such as Ebey(1940), Skoksberg (1950) and Nichoff (1964).

Ayer (1920) found that the money spent per pupil was the most influential factor in the adaptability of a school. This finding was corroborated by Mort. Mort and Cornell (1938) found that communities played and important part in the development of the schools. Miles (1965) identified educational organisation as an important factor in adaptability. Karpat (1960) concluded that the power elite in a social system especially encouraged the introduction of innovations whose consequences not only raised the average levels of good but also led to a less equal distribution of good.

Havelock (1973) identified four strategies in the use of knowledge to effect educational change. The Research, Development and Diffusion Model proposed a rational, systematic, large-scale process involving

a division of labour among researchers, developers, disseminators and practitioners. The passive consumer received the package and implemented the necessary change. The Social Interaction Model implied relatively unplanned spread of knowledge through social networks of individual practitioners. This slow process was haphazard and dependent on individuals. The Problem-solving Model dispensed with the centre - periphery consideration and saw innovation as springing from perceived needs and experienced problems. The fourth model, linkage, retained the problem-solving dimension, but the resources of the school were to be supplemented by external resources, which could be called upon to help the institution to understand and negotiate change. Those who gave such support included researchers, organisational consultants, curriculum specialists etc. They worked as linkages in networks of institutions.

Studies on innovations have mostly been of the quantitative type, employing statistical techniques of analysing data. Only 7.4% of the studies surveyed by Havelock (1973)were case studies. Out of the thousands of dimensions of dissemination and utilisation events that had taken place every year, there were so few documented in such a way that others might learn from them. The Centre for Educational Research

and Innovation (C.E.R.I.) sponsored by O.E.C.D. published a series of case studies (1973) on innovations at the Central, Regional and School levels. The study developed a change model consisting of Planning, Research, Development and Diffusion, with seven stages—Problem- Identification and Definition; Innovation Planning; Innovation Programming and Development; Experimentation; Evaluation and Revision; Dissemination and Production; and Implementation.

Adams and Chen (1981) studied the process of planned innovation and change in the educational systems of seven countries in an attempt to understand the process and to consider how the changes might be brought about more easily without the familiar accompaniments of pessimism and failure. They chose seven uncompleted projects, from seven countries and studied each of them through the case study method, noting their cultural and economic differences, as well as successes and failures.

Other studies on the various aspects of innovation and change have been referred to in Chapter II.

2. Studies in India

Research efforts in the area of innovation and change started in India in the sixties, mostly at the Sardar Patel University and the M.S.University in Gujarat. During the two decades that followed considerable progress has been made in the field, thanks to the contributions of educational researchers and experts in management. During this period an important trend that became noticeable was the interactions between specialists in management and education and their collaborative efforts in study and training.

Manuel *et al* (1962) conducted a pioneering enquiry into the various aspects of basic education and identified the causes for the resistance to the programme. The study by Griffin and Pareek (1963) recommended certain action plans for expediting the change process in education: (i) exposure to innovations should be imparted to those desirous of change. (ii) sustained use should be accepted as the law. (iii) Involvement of adopters in the creation, development and planning of change efforts. (iv) Enhancing the self-concept in favour of one's own competence in relation to perceived innovations. (iv) Assurance of appropriate incentives from superiors.

The factors which contribute to or inhibit educational innovations were studied by Rao (1967). He found that extension service department, headmasters, seminars, workshops, inspectorates, training college personnel , books, magazines and journals were the sources of new ideas and practices. The areas of innovation that were subjected to his study were classroom instruction, use of audio-visual aids, utilisation of learning experience, examination reform, school administration, and pupil welfare. The study identified the State Department of Education, and poor leadership of headmasters to be the major inhibiting factors. The positive factors of innovative schools were; better library facilities, adequate physical facilities, utilisation of library resources by staff and students, progressive management of the school, cosmopoliteness of the headmasters and teachers, professional competence of the staff and effective participation of teachers in professional development programmes.

The factors affecting innovations leading to change in secondary schools in Khaira district of Gujarat were studied by Desai (1972). The findings of the study were the following; (i) The number of innovative practices in a school is dependent on the innovativeness of the school, (ii) Most innovations are initiated by Headmasters or are

are authority-sponsored. (iii) The main sources of innovation are seminars, workshops, Department of Education and Management.(iv) In an innovative school individual and group communication exists.(v) The factor of resistance is internal to the system and is mainly teachers. (vi) The value system and financial status of the institution affect the change process. (vii) Principal's leadership, team spirit, physical facilities and finance are positive factors in the diffusion of innovations.

The conditions promoting adaptability in schools were studied by Buch(1973). The object of the study was to discover if there was significant relationship between each of the 49 variables of the study and adaptability. The outcome of the study showed that the following variables relating to the Principal were significantly related to the adaptability of the school: Principal's in-service training; his feelings about job security; perceived, self-rated administrative abilities; perceived level of relationship with the District Education Officer; perceived support for his innovations from the staff of the teachers' training college; membership contacts with organisations; frequency of attending professional meetings; inter-school visitation, perception of the expertise of the teachers' college personnel; cosmopoliteness; involvement of the parents in the school; Management's interest

in the school; distance of the school from the teachers' college.

Pillai (1973) found that the openness of the organisational climate of the school enhanced the school's capacity to adopt innovations.

Bhagia (1973) undertook a study of the perception of characteristics of innovations as related to their diffusion in the schools of Gujarat. The innovations selected for the study were : instructional planning, unit planning; objective type tests; educational and vocational guidance; cumulative records; science club; work experience; cooperative store; programmes for gifted children; weightage to periodical tests in annual promotion; hobby centre; parent teacher association; and staff seminars. The findings of the study showed the relationship between the adoption and diffusion of innovations in schools and the Headmaster's perception of their utility and their intrinsic and situational characteristics. It was also found that the inability of change agencies to create the appropriate psychological orientation among potential adopters was responsible for the non-acceptance of many useful innovations.

The factors related to innovation and change in the secondary schools of Gujarat were studied by Doctor (1974). The characteristics of innovative schools identified by her were : clarity of perception of philosophy and goals; adequacy of physical facilities;

Principals' proneness to innovations; low number of non-innovative teachers; higher mean score of the upward category of adopters; higher scores on the involvement of teachers; lower score of downward shift for adopters; higher score on the total evaluation of the school.

Mukhopadhyaya (1975) in his study of barriers to change identified the following as the major barriers: (i) Inadequacy of the management of innovations and change. (ii) Lack of systemic view and planned effort in educational change. Looking at the control systems in secondary education he found that India had adopted the planned change approach to educational transformation in principle, but in practice it was not evident. The major dilemma of centralisation versus self-initiated change had crippled many innovations. Even with decentralised authority it was essential to clarify the role of the different organisations and ensure coordinated efforts.

Panchal (1977) constructed an Innovative-Proneness scale for teacher educators.

Buch(1976) compiled the different tools of innovativeness used by researchers in India and abroad.

The collection included instruments prepared by Indian researchers also. They were Rao's Instrument to Measure Innovations in Secondary Schools; Bhogle's Instrument to measure Acceptance of Innovations; Roosa's Scale of Measuring Rate of Adoption; Buch's Adaptability Scale; Rai's Instrument to Measure Diffusion of Innovations; Bhagia's Tool to Measure Adoption and Diffusion of Innovations; Doctor's scale of Innovativeness; Mukhopadhyay's Change-Proneness Inventory. This publication proved to be of much use to researchers and indicated the contributions of Indian researchers to the study of innovations.

The communication pattern between the colleges of education and the schools was the theme of the study by Josephine (1978). She found a relationship between the innovativeness of the school and the frequency of its communication with the colleges of education.

Sharma (1979) found that the physical proximity of the resource system promoted adoption of innovations. Other factors which facilitated the adoption process were the resource system's openness, linkages, capacity and prestige.

Balasubramaniam (1978) studied the strategies adopted for the implementation of innovations in schools

and found : (i) School complex and supervised study adopted in the schools were officially sponsored. (ii) The programme was imposed on the teachers in the least innovative schools, while its adoption was discussed in staff meetings in the most innovative schools. (iii) The adoption of the new practices was complete in the most innovative schools and partial in the least innovative ones, (iv) Teachers took up the innovations within school time in the least innovative schools while in the most innovative schools the teachers worked extra time.(v) Clarity and specificity of objectives were distinguishing factors between the most innovative and the least innovative schools.(vi) Official recognition and appreciation reinforce adoption of innovations. (vii) Research, Development and Diffusion Model and the Social Interaction Model were the widely adopted models of change.(viii) Social interaction perspective was more successful in the case of innovations in administration, role perception, curriculum, methodology and evaluation.

Case Studies of 25 innovative and non-innovative secondary schools of Tamilnadu were done by Purushothaman (1978) whose findings are given below:(i) As far as innovative ideas are concerned most of the schools function as self generating systems. (ii) The objective of the innovations is to meet their needs.(iii) Those in authority help the members of the system in adopting innovations. (iv) Problem-solving and Social Interaction models

of change process are most common. (v) Procedures for evaluation are built into the system. (vi) Resistance is reduced by built-in mechanisms such as power concentration in the authority and major role for the adopter in the innovation process.(vii) Factors which promote innovativeness are: active managing committee, support of the managing committee to the headmaster, system affinity of the staff, parents' education, level of student awareness and the perception of the community about the school.

Sathyavati (1980) identified the characteristics of successfully adopted and discontinued innovations in the 30 selected schools in Gujarat. The characteristics, of successfully adopted innovations were the following:

(i) Most of them were proven educational ideas.

(ii) Innovations were considered as experiments by most Principals.

(iii) Most innovations were suited to the present social system.

(iv) A considerable number of teachers resisted the innovations.

(v) Management supported the Principal fully in the adoption of innovations.

(vi) Recognition was given for the adoption of innovations.

(vii) Adoption of innovations led to improved pupil achievement, better school climate, increased parental interest and teacher punctuality.

Rajagopalan (1983) conducted an enquiry into certain aspects of selected innovations implemented in Tamilnadu. His findings included the following;

(i) Headmasters are the principal persons involved in the dissemination of innovations.

(ii) Participation by the client system in the implementation of an innovation seems to be a positive deterrent against any resistance being developed to the innovation.

(iii) Innovations resisted openly by most of the practitioners are discontinued.

(iv) The staff meeting is the common mode used in schools for shaping an idea.

(v) Teachers' unions oppose changes which lead to loss of jobs or loss of prestige.

(vi) The time lag between the awareness stage and the decision stage is a significant factor in the institutionalisation or continuation of an innovation.

(vii) Most practitioners had lack of conviction in the innovation.

(viii) Most decisions were authority decisions and the authority strategy was mostly used to introduce innovations. He also suggested that a Department of innovation and change should be created at various levels.

3. Studies on Higher Education

It has been pointed out that there were fewer studies on issues and problems relating to higher education, as compared to school education. Among the early studies on higher educational issues were the following: Joshi (1972) on "Innovation and Change in Teachers' Colleges"; Azad (1972) on "Financing of Higher Education in India in the Post-Independence Period "; Datta(1970) on "Economics of Higher Education in West Bengal Colleges"; Manuel (1968) on "Unit Institutional costs in Higher Education "; and Agarwal (1969) on "Value System and Dimensions of University Students in Uttar Pradesh".

Recent years have seen the growing interest of researchers in higher education and its problems. Narsian (1978) studied the implementation of examination reform in 12 universities, Rao (1980) critically examined the implementation of innovations in higher education, such as internal assessment, semester system, M.Phil programme and the correspondence course. Tasera (1983) analysed the situation of women's higher education at the level of a district. The academic and social needs and problems of Scheduled Caste students were probed into by Thiagarajan (1983). Kanagasabapathy (1985) reviewed the management of change in a university. Jain (1983) made a critical evaluation of two innovative programmes sponsored in colleges

by the University Grants Commission - College Science Improvement Programme and the College Social Sciences Improvement Programme.

4. The Place of the Present Study

From the brief survey of related literature given above the following trends can be noticed:

(1) The number of studies on innovations in higher education, especially affiliated colleges, is very small.

(2) Very few case studies of innovations in higher education have been attempted.

(3) Studies of innovations in various states simultaneously have been rarely undertaken.

(4) Despite the large number of significant innovations introduced in higher education, corresponding research effort to analyse them was not initiated.

The present study was concerned with the process of educational innovation at the college level.It was explorative in nature in asmuch as the selected innovations had not been subjected to detailed analysis earlier. An attempt was made to analyse each innovation comprehensively from its conceptual stage, through development and diffusion to implementation, evaluation, consequences and follow-up. Moreover they were viewed in a national perspective, taking into account the resource systems at various levels.

The findings and conclusions of previous researchers were the foundations on which the present study was based - especially those relating to time-lag, decision-making on adoption, role of the resource system in development and diffusion, human and material resources, characteristics of innovators and innovative institutions, clarity of objectives, evaluation and feedback, consequences, dissemination, role of the change agents, strategies of implementation, facilitative and inhibitive factors and the models of the change process.

The case study method was used in this investigation to depict the innovations and to highlight their characteristics, with realism and wholeness. The scarcity of studies on innovations in higher education and the sparse use of the case study method in this field render the present study all the more relevant and opportune.

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