

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter aims at presenting a review of the relevant literature and researches dealing with the diffusion of innovations and the change process with a view to exploring the basis for needed research in the area. The review focuses mainly on what have already been achieved in this field and on what lines future efforts should be concentrated.

The history of diffusion research dates back to the publications of Kroeber (1923) and Wissler (1923), which have influenced later researches in this field. Studies before this date, except Tarde's (1903) work, have influenced little the later researches in this field. The early diffusion studies which were started in anthropology dealt mainly with the exchange of ideas between societies rather than spread of ideas within the society. An overview of all the literature and researches dealing with innovations and change shows that the studies in this area are no more confined to

anthropology but have penetrated many other disciplines. Studies in all these disciplines have dealt with a wide range of concepts and problems such as, the diffusion process, the adoption process, change agents, nature of innovations and their diffusability, characteristics associated with innovators and laggards, categories of innovators and so on and so forth. As the studies in education concerning the diffusion of innovations and the change process are likely to be influenced by the studies in other disciplines, it seems essential to discuss in brief the work done in those fields. Rogers (1962) has identified six major traditions which deal with diffusion studies. While the main concentration of this chapter is on the studies in the field of education, the findings of other diffusion traditions have also been touched.

ANTHROPOLOGY

Anthropology is the oldest diffusion tradition which has influenced all other traditions, specially early sociology, rural sociology and medical sociology. The work of Kroeber (1923) and Wissler (1923) can be marked as the beginning of diffusion studies in traditions which have influenced later studies. Linton (1936) was the first one to find out that the characteristics of an innovation are related to its rate of adoption. With the work of Sharp (1952) the emphasis on

the social consequences came to the field of anthropology. Barnett's (1953) contribution to this tradition is important in the sense that he described the adoption of innovations at the psychological level. Recently the studies in this tradition are emphasising the analysis of cross-cultural programmes of technical assistance. The studies of Mead (1955) and Erasmus (1961) belong to this tradition.

SOCIOLOGY

The pioneering work in this discipline is that of Tarde's (1903). He came out with certain basic suggestions such as S-shaped curve of adoption rate in relation to time and cosmopolitanism of innovators. Most of the early sociologists however, studied only one innovation over a geographical area. It was McVoy (1940) who first set a model for studying innovativeness by constructing an 'index of progressiveness'. Bowers (1937 and 1938) was the first one to collect data from other sources than government records and he (1938) was the first one to find out that personal sources were more important for earlier adopters than for late adopters.

An analysis of all the past researches reveals that the maximum number of diffusion studies have been conducted in the field of rural sociology dealing with farm innovations. The classic study of Ryan and Gross (1943) has contributed a lot to

the understanding of different concepts which are used in this field. Other important contributors to this field are Lionberger and Wilkening. Lionberger's series of studies (1951, 1953, 1955, 1956, 1959 and 1960) have given insight into the sources of information, community norms, traditionalism-modernism, social status, and opinion leadership and its relationship with the diffusion of ideas. Wilkening in his series of studies (1949, 1951, 1952 and 1953) used socio-psychological approaches to find out the correlates of innovativeness. His studies conducted in (1953, 1954a, 1954b) have shown the role of farm family on adoption decision. A rapid increase in the research in this field was found from fifties not only in U.S.A. but also in other countries. A number of studies were conducted in India also, such as Barnabas (1955, 1957 and 1958), Rahudkar (1958, 1959, 1961, 1962 and 1963), Bose (1960, 1961, 1962, 1963, 1964a and 1964b), Rao (1961), Bose and Dasgupta (1962), Bakshi (1962), Rathore (1962), Sinha (1963), Sinha and Yadav (1964). All these studies are concerned about innovations and change in agriculture. They deal with adoption process, factors that influence the adoption process of an innovation, characteristics of farmers as related to adoption of an innovation and the role of change agents.

INDUSTRY

The studies in this tradition are motivated to conduct researches on economics of innovation. The industrial firm is mostly the unit of analysis in such studies and data are mainly from secondary sources such as, historical records. Case study approach is more often used in this tradition. Important studies in this traditions are of Danhof (1949), Carter and Williams (1957, 1959) Enos (1960), Mansfield (1960, 1961a). Danhof (1949) categorises innovators in the field of industry as innovators, initiators, fabians and drones. Carter and Williams (1957, 1959) also classified the industrial firms ^{according} ~~as~~ to innovativeness and studied the characteristics of progressive firms. Relationship between profit and innovativeness has been studied by Enos (1958 and 1960) and Mansfield (1960, 1961a and 1961b). These are studies in which attention to consequential variables was paid. The important factors found to be associated with the innovativeness are favourable attitude towards science, cosmopolitaness, adequate number of information sources and high growth rate for the firms.

MEDICAL SOCIOLOGY

The studies in this tradition can broadly be classified into (1) studies where the adopters are doctors and (2) studies

where the adopters are the public. Caplow's (1952) was one of the first studies in this tradition. These studies have tried to find out the influence of opinion leaders in the diffusion of drugs among medical doctors. Classic study in this tradition was conducted by Katz, Menzel and Coleman. Investigations of these sociologists such as Menzel and Katz (1955), Katz (1956, 1957 and 1961), Menzel (1957, 1959 and 1960) Coleman et al. (1957) are well known for their contribution to the diffusion studies. In this tradition a number of studies are completed by researchers centering around the public acceptance of medical ideas such as Deasy (1956), Hochbaum (1960) and Yeracaris (1961). Most of these studies have analysed the correlates of innovativeness.

EDUCATION

Rogers (1962) has summarised more than five hundred studies from all research traditions including education. But according to him studies in the field of education contribute very little to the understanding of the diffusion of ideas. However, Rogers' analysis of the adoptive process in different research traditions has proved useful even in the field of education and later research workers have drawn basic theory from his analysis of adoptive process.

Bienenstok (1965) warned educators against the hazards of relying too much upon the findings of researches in other fields when dealing with change in education because the adoption of new educational practices is not necessarily influenced by the same factors nor does it follow the same course as the acceptance of new practices in other fields as agriculture, industry, anthropology or medical sociology. But here it can be mentioned that knowledge so gained from any of the fields is certainly helpful in planning researches in the others.

The history of education-diffusion studies dates back to the thirties of this century. The pioneer in the field of education diffusion studies is Paul Mort. He has been described as the 'guiding force' in all the education diffusion studies. A majority of education diffusion studies have been done at Columbia University's Teachers College under his sponsorship. Mort and his students have completed nearly 200 studies on the adaptability of Public Schools. These studies are published in Mort and Cornell's (1938) 'Adaptability of Public School Systems', based on Mort's finance studies and state structure of schools. This work has made valuable contributions in defining the concept of adaptability and other associated terms in identifying factors which are controllers of adaptability in a community and in

exploring the ways by which adaptation process can be studied. They found that a period of hundred years elapsed from the time of the first recognition of a need to the relatively complete diffusion of a practice designed to meet the need. Ross (1958) reports that about 50 years elapsed after development of a new education practice before its adoption by the public schools and the average American School lags 25 years behind the rest in adopting the practice. The cause of this lag and factors affecting adoption process have been studied by many researchers.

Miles (1964), not only presented a rationale for change, but cited many examples of change in the American schools.

Some valuable work has also been done in the Center for the Advanced Study of Educational Administration, University of Oregon. Carlson (1964 and 1965) studied the school superintendents to discover what caused certain superintendents to adopt new innovations while others did not. He found that superintendents look to fellow superintendents for advice. They generally seek advice from superintendents whom they consider to be having higher status than they have. Superintendents who have friendly contacts with other superintendents tend to be adopters, while superintendents who are social isolates tend to be non-adopters. According to Carlson the innovators are young, have more professional education, have attended

more professional meetings, are more professional minded, interact more with persons and receive higher professional ratings.

Carlson has used the school superintendents as the adopting unit indicating that though it is true that a school system as a whole accepts or rejects an innovation, the school superintendent is at the focal point in the decision process. Johnson et al. (1967) also studied the personality characteristic of school superintendents in relation to their willingness to accept innovations in education and found that personality characteristics of high innovative and low innovative superintendents differ. The high innovative superintendents are significantly more outgoing, more venturesome, more imaginative, more experimenting and more relaxed than the low innovative superintendents.

Researches that have been completed in the tradition of education have come out with some valuable, although sometimes conflicting, conclusions on educational change process and innovation. Mort (1946) and Ross (1958) both came to some similar conclusions that the adoption of an innovation is related to the expenditure pattern of the school. Carlson (1965) does not agree to this finding. According to him there is no consistency between the money spent and the number of innovations adopted. Carlson (1965) concludes that social characteristics and

communication behaviour of the school staff is related to the innovativeness of the system. Lin Nan et al. (1966) also support Carlson's findings. Carlson is also of the opinion that principals and administrators play a key role in adopting innovations. Lin Nan et al. (1966), Rogers, Joyce et al. (1966), Gallaher (1965) are of the opinion that the principle users are also important as far as the success of an innovation is concerned.

In the following few pages studies conducted by different researchers keeping in focus different adopting Units are discussed. The variables studied and their major findings have also been listed. The variables that can be studied in diffusion researches can be classified into the following categories : (i) Diffusion effect variables, (ii) communication variables, (iii) social system variables and (iv) consequence variables. Most of the past diffusion researches in the field of education have mainly dealt with diffusion effect variables, very few of them have concentrated on communication variables, social system variables and practically none on consequence variables.

1. Diffusion Effect Variables : In almost all the studies these diffusion effect variables are taken as dependent variables because they are the immediate effects of the diffusion of innovations such as awareness, adoption, rate of adoption, social innovativeness etc. Most of the past researches have dealt with school innovativeness as the

main dependent variable and studied the diffusion process from school to school. Such studies are those by Knott (1939), Farnsworth (1940), Cillie (1940), Ebey (1940), Bateman (1949), Mort and Francis (1941).

Marion (1966), studied factors related to the innovativeness of elementary school principals. He concludes from his findings that the innovative principal tends to be younger, more cosmopolite, more professionally oriented and more influential among his fellow principals. Further, the innovative principal tends to be mentally flexible, viewed as highly innovative by other principals, and has recently taken University courses. The innovative principals usually work in a school situated in a higher socio-economic area of the community, staffed by teachers who favours the adoption of new educational practices. The amount of education of the principal, his dogmatism, anxiety, his values and the size of the school seem to bear no relationship to his innovativeness. Rogers (1962) has reported a study where negative correlation between dogmatism and innovativeness exists. Carlson (1964) found direct relationship among his superintendents' position in the status structure and the rate of adoption of modern mathematics.

Bennett (1968) worked on the relationship of organizational climate with innovations in schools where the principal is characterised by close supervision of the staff and where he is

highly directive. A large number of innovations are in evidence in schools which have relative freedom for the teachers, where the faculty members provide for their own structures for interaction and where the staff can find ways within the group for satisfying their social needs i.e. in autonomous climate.

Roosa (1969) studied organisational climate, leader behaviour and their relations to the rate of adoption of educational innovations. He did not find any positive relationship between adoption of innovations and openness of organisational climate. He did not find any positive relationship between rate of adoption of educational innovations and the consideration that the school administrators show for the staff and the amount of initiation of structure exhibited by the school administrator. In Roosa's (1969) study a significant relationship was found between (1) the age of the chief school administrator and the amount of consideration shown for the staff, (2) the length of the chief school administrator's experience on the job and the rate of adoption of educational innovations, and (3) the expenditure per pupil and the rate of adoption of educational innovations.

Laverne (1968) also studied the relationship between organisational climate, expenditure, age of the staff, years in the school and number of professional staff, perception of

teachers and administrators of the most innovative and least innovative schools. His findings show that schools involved in innovations showed open climates. There were significant differences between most innovative and least innovative schools in expenditure per pupil, age of the professional staff, years of service in the schools. Educators remained fewer number of years in the schools involved in innovative practices. The most innovative schools showed the larger number of professional staff. Administrators viewed the climate as more open than did the teachers. The average age of the staff was lower in the open climate schools. The professional staff remained fewer number of mean years in the schools with open climate. The average number of professional staff was large for the open climate schools.

The foregoing description of the past researches reveals that in almost all the past investigations the unit of analysis was the school system. Most of the researchers studied the characteristics of the principals or superintendents as they thought them to be in the key position of the adoption process. During recent years a shift in this trend has been observed. Researchers are also trying to concentrate on the study of teacher characteristics as teachers are the ultimate users of innovations.

Buley (1947) studied personal characteristics and staff patterns associated with the quality of education. Eastmond (1950, 1951 and 1954) analysed the characteristics of school staff in order to determine what fundamental factors are functional and related to the production of a high quality educational programme. According to him maturity, broad interest, high professional training and diversified background, stability and security contributed approximately 82 per cent of the variance, of the adaptability measure. Boyer's (1954) work confirms the findings of Buley and Eastmond. Williams and Hull (1968) found out the variables influencing teacher adoption of co-operative agricultural occupation curricula. Administrators' attitude, expenditure per pupil, number of agricultural training stations available in the community, offering of a separate agricultural mechanic class and number of vocational education programmes offered by the school have not seriously inhibited the diffusion of co-operative agricultural occupation curricula.

Walberg and Welch, (1967) found innovative physics teachers scored higher on theoretical and aesthetic values than other male high school teachers, but lower on economic, religious and political values. The innovative teachers scored much higher on a physics achievement test. Compared with other high school science teachers, they are less autonomous and

heterosexual. Because of their relatively high intellectual and artistic values and need for autonomy and social independence, their profiles resemble those of creative scientists. The teachers who have a firm grasp of their subject not only have more positive attitudes towards teaching, but appear to be less intrceptive.

Bickert (1968) studied organisational values and characteristics of school systems. Classroom teachers, more than school administrators or school board members, appear to have distinct feelings concerning the items being evaluated. Classroom teachers from innovative school systems showed a relatively high degree of satisfaction with the instructional programme in their school, while those in non-innovative schools appeared relatively dissatisfied with many of the motivational aspects and the instructional programme of their systems.

Butts and Raun's (1968) study in teacher change shows that the dimensions of the teachers' previous experience which are significantly related to a change in teacher's perception of a curriculum innovation include her competency in science and her previous credit in science. The study appears to suggest that a teacher education programme can be expected to produce the greatest change in perception of the innovation with a teacher who has a number of years of teaching experience but who

has few hours of previous science courses. It also shows that the competency in science of a teacher affects change in the teacher's practice of a curriculum innovation.

Gallaher (1965) suggested that ' the better teachers in a given school are more likely to accept innovations than the poorer one; the more educationally secure members of the client group are more likely to accept innovations'.

Glines (1966) suggests that the strategy for change is simple, if the school's administration encourages innovative teachers to innovate. Once this occurs, good teachers find their motivation in personal satisfaction derived from using more effective ways of teaching. McComas (1962) in a study of role of vocational agriculture teachers found that effective teachers of agriculture and their administrators were in agreement concerning the role expectations of teachers.

Chesler and Fox (1967) in writing about teacher-peer relationships and educational change reported that teachers need to feel involved and potent in their organisation in order to support educational change; they must know that they have the backing of their fellow teachers and their administrators if they are to be willing to try new ideas. Since change may involve public attention and risk, teachers who feel that they do not have the backing of their colleagues are less likely to go out for change of their own than more secure teachers. Not only does a teacher need to feel involved and potent in total

school system in order to initiate change but he must feel capable to perform in a new role if required by the innovation. In this regard Dinkmeyer (1964) says that there is increasing evidence of the significance of an individual's self image relative to the adequacy of his functioning. If the individual does not feel capable or is uncertain about his responsibilities he is not effective. Security comes from understanding one's role and having confidence in one's ability to play it well.

The school administrator is not the only individual that affects the innovativeness of the school system. Rogers (1965) advocated that an individual teacher influences the innovativeness of the school system. Allowing teachers to attend out-of-town educational meetings, workshops, conferences where they may be exposed to new ideas, may be a wise instrument for initiating change. At present, Rogers himself is one of the leading authors of diffusion studies. In 1966, a study was conducted by Rogers and others, through the sponsorship of Michigan State University which served as a pilot study for the main study conducted in Thailand. Both the studies show that age, faculty cohesiveness, feeling of security, knowledge about the innovation, more years of education are positively related to the adoption of innovations. These two studies measured two new dependent

variables called internalization and change orientation. The above discussion shows that in fact very few studies are there dealing with 'within' organizational diffusion whether in education or ⁱⁿ any other tradition. Few such studies are those of Wager (1962), Lin (1966), Becker and Stafford (1967), Carroll (1967), Evan and Black (1967), Knight (1967), Sapolsky (1967), Shepard (1967).

II. Communication Variables : The nature of diffusion process for an innovation within a system largely depends on the nature and amount of communication operating among the members of the system. The direction and the amount of communication provide the climate for innovations to diffuse between or within the systems. This category includes dimensions like amount or frequency of communication, channels of communication, change agents and extension methods, nature or direction of communication i.e. upward, downward, horizontal and asymmetrical communication pattern. In all the studies, this category of variables are studied as independent variables.

Very few studies in the field of education have selected variables which come under this category. The communication network of teachers, principals and district education officers were studied by Rogers, Joyce et al. (1966) and in most of

the cases they found a significant positive relationship with the innovative behaviour of the respective categories. Lin Nan et al. (1966) also studied the perception of communication network of teachers and its relationship with their innovative behaviour in the three schools of Michigan. They found that horizontal communication about the innovation has got significant positive relationship with the innovative behaviour of teachers whereas perceived frequency of vertical communication and general horizontal communication are not related to it. Carlson (1965) in his West Virginia study found knownness of the superintendents to be positively related with their innovativeness.

Studies dealing with this category of variables from the field of rural sociology are those of Wilkening (1952 and 1956), Rogers and Beal (1958a, 1960), Copp and others (1958), Sill (1957). In these studies investigators have tried to relate personal and impersonal communication sources with different stages of adoption. Campbell (1959), Wilkening and others (1960), Beal and Rogers (1957a), Leuthold (1960), worked on cosmopolite information sources and have come to conclusion that cosmopolite sources are most important at the awareness stage whereas localite information sources are most important at the evaluation stage.

Change agents and adoption of innovations are studied by Ryan and Gross (1943), Beal and Rogers (1957), Copp and others (1958). They have come to the generalization that commercial change agents are more important at the trial stage than at any other stage of adoption process, and they are more important for earlier adopters.

III. Social System Variables : This category includes variables related to the structural characteristics of an organisation such as leadership style and degree, system norms, method of supervision, organisational climate. Most of these variables are relatively difficult to manipulate but manipulation can be effected within long range training programmes.

Studies dealing with these variables are those of Bennett (1968), Roosa (1968) and Laverne (1968). These studies have been already discussed at length in the previous paragraphs.

Reynolds (1970) found that the contributing factor to the adoption process is leadership behaviour of both the principal and teachers. Bamberger (1970) in a study on organisational climate, faculty belief system and their relationship with the rate of adoption of educational innovations found a significant positive relationship between

the degree of openness of the organisational climate, the degree of openmindedness of the faculty belief system and the rate of adoption of educational innovations. Miller (1970) in his study of factors related to the adoption of innovations by counsellor-educators and counsellor education departments reported that higher number of expert leadership position is related to counsellor-educator innovativeness. However, Hardy (1970) found that the principals considered more effective advocates of change do not possess a significantly higher degree of executive professional leadership than principals considered less effective advocates of change. Carlson (1965) in both his studies of Allegheny county and West Virginia found that opinion leadership of superintendents is positively related to their innovativeness.

Andrulis (1970) tried to identify the characteristics that affect the installation process. He attempted to relate a set of variables descriptive of the teachers, principals and schools plus attitudinal and personality factors which are certain indicators of the degree of installation success of a curriculum programme. The degree of satisfaction of teachers which constitute school morale and the perceptions of school climate were found also to be related to the installation process of an innovation. Teachers who were satisfied with school's physical facilities, who were orderly and structured in setting and meeting goals for their students, and who were

highly dependent upon others, and perceived their school's environment as controlled and restrictive in its daily activities were among the group of teachers highly successful in the installation process. Wallace (1970) concluded that both teachers' personality characteristics and the organisational environment play important roles in determining the eventual success of the installation of an innovative curriculum.

IV. Consequence Variables : None of the past researches have dealt with the consequence variables. Not a single study in education has been reported which reflect the consequence or the effects of innovations in the organisation such as productivity, quality, morale etc. However, studies in other traditions regarding the social consequences of innovations and technological change have been conducted. Some of such studies are of Ogburn and Gilfillan (1933), Sharp (1952), Bertrand et al. (1956), Karpas (1960).

A time has come when we need to look back and modify the concepts, assumption, approach and method of attack in diffusion researches. The important thing is that the teachers, principals, superintendents or other administrators do not work in isolation but in an organisation, in a social milieu. If they are studied in isolation the results will not be reliable one. In an analysis of the diffusion of innovations to teachers in Thai Government Secondary Schools, Mortimore (1968) found very low correlations mostly because the

structural effects were almost entirely ignored. The organisational environment does exert important influence on the individual's innovative behaviour. Now, we cannot afford to overemphasise the individual ignoring the social setting and communication relationships and ultimate consequences of innovations. To introduce these new variables and to measure the results effectively we need to change the methodological approach to the study of diffusion of innovations.

Bhola's (1965) findings have emphasised the need to recognise physical, social, and intellectual environments in studying the innovation. The environment may be of three types such as supportive, neutral or inhibiting to innovation. Too much supportive environment is also not desirable, because the change in such environment is too fast and there is every possibility that before any measurable result is attained, it is pushed back by new innovations. Griffiths (1964) and Pellegrin (1966) are of opinion that the major stimuli for educational innovations and change come from external sources. Hilfinker (1969) emphasises the need for a 'self-renewing posture' in education to meet the pressures for change.

DIFFUSION STUDIES IN INDIA

In India very little work has been done in the field of diffusion studies. Most of the agricultural colleges have

conducted few diffusion studies at post-graduate level. Some amount of work has also been done at Indian Agricultural Research Institute. Pareek in his directory of 'Behavioural Science Research in India' has compiled nearly one hundred and fourteen studies in the area of adoption and diffusion of innovations from the year 1925-55. This compilation shows that all the researches are done in the area of agriculture. Most of the researchers have tried to find out the characteristics of the adopters of improved agricultural practices.

Subbarao's (1967) was the first attempt in education at doctoral level to find out the factors that contribute to the promotions of innovations. He came out with the findings that more innovative schools have better facilities, more audiovisual aids, special rooms, books and magazines for students and teachers. Lack of these facilities in any other way is one of the inhibiting factors for innovativeness. Management of an innovative school, in general, are more progressive and enlightened in their policies. The Heads of more innovative schools, who are also innovators in their own way and are distinguished by more academic and professional qualifications, have special talents and considerable number of hobbies, have more than 10 years of

service, have visited 5 to 6 States, have been educated in different places of study, are more professional minded, well read, are in touch with current literature, have personal libraries, have membership in two or three associations and display professional leadership by directing seminars, workshops, etc. They are more ego involved, job conscious and interested in the quality of education. Age is no bar to the head of an institution to try innovations or adopt new practices.

The staff of more innovative schools compared to the staff of less innovative schools are better qualified and trained, have visited other States, are more professional minded. Age of the staff is not significantly related to innovativeness of the school system.

Among important² inhibiting factors toward innovativeness of the school system are rigid government rules about syllabus and text-books, inadequate grants, too much of office and organisational work on the part of the principal, less equipped staff, lack of initiative and interest on the part of the staff, pupils from backward classes, over-crowded classrooms etc.

Bhogle's (1969) work on psychological and organisational correlates of acceptance of innovations by schools, is also one of the earliest attempts in India to study the mechanics



of educational change. She studied the influence of some social, psychological and organisational factors on the readiness (of both principals and teachers) to accept changes in high schools. She found that headmasters having democratic and favourable attitude towards teaching, more experienced, drawing higher salary, having low role conflicts, are more innovative. Older the head more adoptive he is. She also concluded from her findings that cosmopolite and older teachers are more ready to accept innovations. Large and multipurpose schools are more adaptive.

Buch's (1972) efforts have been centred around finding out the conditions that promote adaptability in Indian schools. Her investigation is mainly concerned with the principal's characteristics as related to school adaptability. Her findings show that variables from these four categories i.e. principal's exposure to new ideas, his administrative ability, positive reinforcement from authority and community involvement in schools discriminate significantly between high and low adaptable schools. Principal's inter-school visitation, his self-rated administrative ability, parent's involvement, professional meetings attended by the principal and feeling of security of the principal account for 57% of the variance in the criterion variable i.e. adaptability of the school. Results of her study show that age, educational level, experience

in teaching profession as well as experience as a principal, role satisfaction of the principal, principal's perception of change orientation of the district education officer and training college personnel, reported performance feedback from the district education officer and training college personnel, principal's perception of equalitarian relationship with the district education officer etc. have no relationship with the adaptability of the school. Support of the innovations by the superiors or colleagues also does not influence school adaptability significantly. General mass-media exposure of the principal and number of journals read by him has little relationship with the adaptability of the schools.

Her findings also reflect that none of the eight dimensions of organisational climate (Halpin and Crofts' Classification) are related to the adaptability of the school system.

Few other doctoral studies are yet on the way to materialise and all these studies have mainly taken up the school as a unit of analysis.

CONCLUSION

The above review clearly indicates the paucity of research in the area of diffusion of innovations in education in India. Whatever studies that have been reported are concerned with

the characteristics of innovative schools and correlates of acceptance of innovations by schools. The studies in the western countries are mostly in the area of school adaptability. No doubt Carlson (1964 and 1965), Marion (1966), Bennett (1968), Roosa (1968), Laverne (1968) etc. have studied the adoption of innovations but these studies, again, concentrate on the school principal, his leadership style, the school organisational climate and such other variables. Not many studies are ^{there} in the area of the diffusion of innovations within a school system with teachers in the focus, the only exceptions being the studies by Lin Nan et al. (1966), Rogers, Joyce et al. (1966). The latter studies have investigated the problem of diffusion of innovations within the school system and not between the school systems. This review has been helpful in deciding about the specific problem to be undertaken for investigation. The next chapter deals with the specific problem, variables etc.
