CHAPTER - V

A SUMMARY OF THE FINDINGS

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1. Introduction

Twenty five case studies have been reported in the previous chapter. Normally the case-study method is useful in bringing out the unique characacteristics of anything that is studied. In this instance the overtly visible traits of the individual units (schools) of this study remain basically more or less similar. In view of this similarity among the units of this study, a common model has been evolved and used as the frame of reference for the formats of all the case-studies of this investigation. Though the model is common, the format is so maintained that that it allows scope to bring out the individual differences among the various units in the final analysis. However it has to be mentioned that there are more deviations in a few of the case-studies with regard to the basic format just for the sake of justification in meeting the uniqueness of certain aspects of the concerned units.

While evolving a common model of the format for presenting the individual case-studies, the nature of the data that had been already collected and analysed was kept in mind. The data collected through the various tools of this study could not be used entirely in the case-reports because some of the data were not found to be adequately discriminating between the innovative categories of schools.

The objectives of this study, as stated in the chapter III, would have been fulfilled if the findings that have emerged from this study would be presented in this chapter in such a way that

would be meaningful in the 'integrative' sense of the term to the headmasters of the various schools who are desirous of knowing the characteristics or features which if imported into any functional system at secondary level, would lead to the improvement of its innovative level. It is with this view that the findings are presented in this chapter in the form of integrative generalisations to the extent possible. It has also been attempted to present the findings in such a way that would bringout the differences at a functional level among the high, average, low and non-innovative schools.

2. Findings from Part-A of the case studies :

Common functional traits of the Innovative schools :

(1) Source :

(a) The source of the innovative ideas is often found within the system to make it a self-generating system.

(b) The headmaster, the secretary, their own needs to solve the day-to-day problems, the teachers and pupils are the few of the sources mentioned.

(c) In-service courses, teachers colleges and educational journals are a few indicated as sources that are found to exist outside the system.

(d) Most of the schools function as self-generating systems as far as the innovative ideas are concerned.

(2) Objectives of Innovation :

(a) In a majority of instances the headmasters have said "to meet their own needs" as the objective.

(b) The teachers have often indicated, "to realise certain high educational ideals" and "to enjoy the novelty of a new practice" as the objectives.

(c) The authority shows a pragmatic tendency and the subordinates show an idealistic tendency in their perception of the objectives of innovation.

(3) Preparation :

The authority of the system suitably prepares its members (adopters) for innovation adoption in a cordial atmosphere.

(4) Implementation :

Planning the process of adoption is a voluntary function of the adoption unit.

(5) Interest :

The authority (Headmaster) is found to use his resourcefulness to help the adopters maintain their interest in the process of planning for adoption.

(6) Mental trial and evaluation :

Evaluation of innovative practices through mental trial always precedes the adoption stage.

(7) Type of change :

(a) Adopters accept both encumbered and unencumbered innovative practices for adoption. (b) An open-minded approach to change is observed among the adopters.

(8) System effect on change :

The following factors are found to create a favourable system effect on the individual members of the system : (a) dedicated head (b) the authority (headmaster) setting an example himself through his model (c) close supervision of the system by the authority (d) clear goals for the institution (e) identical goals of institution and the innovative practices (f) long and favourable tradition (g) authority's techniques of goal focus and goal-awareness among members (h) incentives for individual innovativeness (i) autonomy for the adoption-unit in the planning of the process of adoption and (j) clients'-need oriented attitude and approach of the authority.

(9) The process model of change :

Most of them are found to be problem-solving model and a few social-interaction model. This shows that the needs of the system are given top priority while deciding the innovative practices, in most of the schools.

(10) Phases of change :

Systematic phases of unfreezing, moving and freezing are planned in the process of change by the authority.

(11) Model of linkage in the process of change : (conducive model)

There is a right type of linkage among the agents and the variables of the change process. Most of the schools have the conducive model of linkage.

(12) Model of linkage with resource system : (a voluntary model)

All the members (headmaster and the staff) of the system without exception willingly participate in as many in-service courses as possible.

(13) Innovation-goal and role awareness of the adopters :

The authority of the system takes special steps (frequently convene the meetings of the staff council and explain) to help the adopters attain a high level of awareness of the goals of the innovative practices and their roles in the adoption-process.

(14) The process of Innovation-decision : (Role of the authority and adopters in this system)

The authority (secretary and (or) the headmaster) decides the innovative practices for adoption in the system.

The adopters decide the process of adoption of the innovative practices chosen by the authority.

(15) The communication process :

The mode of communication is direct and the medium is inter-personal. There is a free two-way communication between the decision unit and the adoption unit (subordinates) which allows an upward flow of communication between the units.

(16) Authority innovation-decision, Rate of adoption and time-lag:

(a) There is power-concentration in the authority. (b) Authority-innovation-decision is followed up by power-coercive and authoritative approach to innovation adoption. (c) Authority-decision accelerates the rate of adoption and minimises the time-lag between the decision and adoption stages.

(17) Building up a 'system effect' in the system:

(a) The authority of the system consciously takes steps to make provision in the system for building up a favourable effect on the adopter. (b) Building a desirable tradition, recognising the

favourable traits of the individual adopters through incentives and rewards, authority setting an example himself through academic leadership are found to be the techniques of building up the 'system-effect'. (c) A favourable 'system effect' brings about a 'homophily' between the adoption unit and the decision unit.

(18) Influence of the 'system effect on the attitude-behaviour consistency' and 'Innovation-dissonance' of the adoption unit:

Efforts are taken by the authority to create the system effect through various methods. When the system-effect is created successfully, it controls the attitude behaviour consistency and innovation dissonance of the adoption unit.

(19) Role and Goal awareness of the adopters :

The authority helps the individual adopters to become aware of the goals of the innovative practices and their roles in the process of adoption even before the commencement of the adoption process.

(20) Order of the adopters' priorities regarding the perceived attributes of the innovative practices :

(a) Relative advantage (b) compatibility of the goals of innovation with the ideals of the institution (c) complexity (d) trialability and (5) observability is the (normal) order of priorities of the perceived attributes of the innovative practices.

The last three of the perceived attributes are sometimes inter-changed.

(21) Communication of Innovation and the source-receiver homophily:

(1) The mode of communication is 'direct' and the medium is interpersonal between the source (normally the authority of the institution) and the receivers (the subordinates) (2) The nature of the mode and the media of communication serves as the index of the source-receiver homophily. (3) Effective communication between the source and the receiver leads to homophily in knowledge and overt behaviour between them.

(22) Adopter categories :

According to their self-perceptions the adopters belong to favourable categories among the classified categories of adopters.

'Laggards' are absent in these systems.

(23) Polymorphic Opinion leadership role :

The authority successfully plays the polymorphic or monomorphic opinion leadership roles for promoting innovative practices in their systems concerned due to their higher level of professional awareness developed through their frequent linkage with the resource systems that exist outside their own systems.

(24) Change-agent role :

The role of the change-agent is also played by the authority through a power coercive approach to the (process of adoption) adopters.

(25) Utilising the peer-ascribed leadership for developing opinion-leadership among adopters

The authority, in a few instances take advantage of the peer-ascribed leadership of an adopter in the system for assigning him the opinion-leadership role.

(26) Functional consequences of innovative practices :

Non-dysfunctional or functional consequences (desired changes from innovative practices) result from the majority of the innovative practices.

(27) Evaluation of Innovation :

(1) Procedures for evaluation of innovation are stream-lined in the system. (2) Adopters plan the process of evaluation of innovation (3) Feed-backs of the egaluation of innovation are analysed at regular intervals. (4) Results of the feed-back analysis are given weight for making necessary modification in the adoption process.

(28) Resistance :

(1) Either the resistance does not exist. (2) or the impact of resistance is not felt on the effective functioning of the system. (3) the resistance does not thrive in these systems probably due to various built-in check mechanisms like power concentration in the authority, significant role for the adopters in the planning of the adoption process, effective communication between the authority and the subordinates and the resultant 'homophily' between them.

(29) Barriers :

(1) The barriers pointed by the adopters in these schools are more universal in nature viz: heavy, syllabus, examination-oriented system of education and want of time within the school hours- (2) Barriers do not exist 'within' the system or in other words the barriers have an extraneous source.. (The barriers are not created from within the system).

(30) The Management : (applies to private-aided schools)

(1) There is an active managing committee that always functions in the interests of the institution. (2) The person at the top weilds all powers of administration concerning the system viz: appointment and termination of the staff. (3) Always the authority has high professional awareness, cosmopoliteness and adequate linkage with resource systems. (4) Single-minded devotion to the institution and its practices is evinced by the person who is at the top of the administration. (5) He exhibits a supportive attitude to the head-master of the school (6) He displays power-coercive or authoritarian approach to innovation-decisions.

(31) The Headmaster :

(1) Fully backed by his superiors in all matters concerning innovation. (2) Has adequate administrative authority in him to control the functions of the systems. (3) Devotes more personal time for school. (4) Possesses higher level of professional awareness than his subordinates and is capable of good academic leadership. (5) Has frequent linkage with external resource system. (6) Exhibits cosmppolite attitude. (7) Plays the roles of the change-agent and opinion-leader. (8) Shows good leadership qualities (9) Maintains adequate rapport with teachers and pupils (10) Attends to adopters' individual difficulties and administers quick remedial measures. (11) Has single minded devotion for his institution (12) Works a lot for the school in his personal time.

(32) The Staff :

(1) Good inter-teacher rapport leading to higher teacher-morale. (2) Maintain adequate rapport with the headmaster and pupils. (3) Have adequate contacts with the parents of the pupils (4) Have higher level of professional awareness. (5) Have voluntary linkage with resource systems. (6) Higher innovation-goal awareness and role-awareness. (7) Have adequate affinity for the system. (8) Have homophily with the management and the authority. (9) Teachers' 'value-systems' are compatible with the goals of the institution. (10) Idealistic attitudes and tendencies are exhibited in the pursuit of innovation.

(33) The pupils :

(1) Have a better system-affinity for their school (2) Have a sense of good respect for the institution (3) Have faith in the system. (4) Higher level of awareness of (a) goals of the innovative practices (b) goals of the institution and (c) their individual roles in the process of adoption. (5) Maintain good rapport with the staff and headmaster (6) Higher role-awareness and role performance (7) In a few instances they are the sources of the innovative ideas or practices.

(34) The Parents :

(1) Mostly educated employed categories. (2) Have higher level of awareness about the school practices. (3) Role-awareness and role performance are adequate. (4) Mostly non-interfering in school practices unless called for by the school, but generally co-operative. (5) Have contact with the teachers and the headmaster of the school. (6) Have good faith in the school. (7) In a few instances they are given roles in the evaluation of their own children.

(35) The School :

(1) Enjoys the good faith of the society. (2) More number of parents seek admission for their children in these schools than the number of seats available for admission (3) No uniformity about the size and age of the school. (4) Most of them are urban in their locations. (5) Has adequate physical facilities. (6) Provides a variety of opportunities for the pupils to take part. (7) Has more systematic method of functioning. (8) Publishes hand outs for pupils (e.g. school diary, calender and (or) annual report). (9) Provides adequate

incentives for the adopters to keep their motivation alive.
(10) Institutional ideals are clear and are made well aware among its members.

3. Findings from Part B :

In this section, two abbreviations have been used viz: (1) MSS ; Mean Score of all the 25 schools. (2) MSSL : The level indicated by the MSS.

(1) Total number of schools selected for study ... 25
Total number of Innovative schools out of 25 ... 20
Total number of Non-Innovative schools out of 25.. 5

(2) Total number of factors studied and scored for each one of the 25 schools ... 6

(3) The Maximum score allotted for each factor & the mean scores of the 25 schools for each of the 6 factors studied in this investigation are shown below:

Table 65 : The maximum score allotted for each factor and the mean scores of the 25 schools

Sl. No.	Name of the Factor	Maximum Score	Mean of the scores of 25 Schools (MSS)	Corresponding percentage level indicated by the mean score(MSSL)
1.	II	6	3.9	65.0
2.	AA	100	81.1	81.1
3.	LB	30	24.5	81.6
4.	OC	6	3.4	56.6
5.	CP	4	2.6	65.0
6.	IM	9	5.0	55.5

(4) Among the twenty 'Innovative' schools, it was found that they could be classified into three categories :(viz) 'High', 'Average' and 'low'. The number of schools in each category is shown below

(a) 'High' innovative schools : 9 (45%)
(b) 'Average' innovative schools : 8 (40%)
(c) 'Low' innovative schools : 3 (15%)

(5) The six individual factor-scores of all the 9 'high' innovative schools are found to be individually much higher than the (MSS) mean factor scores (of all the 25 schools) for the respective factors

except in two instances where the TM factor of one school and CP factor of another school are found to be lower than the MSS.

(6) But the 'average' innovative schools are not like the 'high' innovative schools in this respect. The factor-score levels of the 'average' innovative schools : (a) 4 of the 8 schools have below the MSSL in 2 of the 6 factors (b) The remaining 4 of the 8 schools have below MSSL in 3 of the 6 factors.

(7) The factor-wise differences are shown below:

Table 66 : Factor-wise differences of the mean scores, percentage levels, individual maximum and minimum scores among 'high', 'average', 'low' and 'Non-innovative' schools.

Factors	Innovative Schools 'High' N=9	'Average' N=8	'Low' N=3	Non-Innovative School N=5
II (Innovative Index Score)				
1. Mean Score	5.0	4.1	3.5	2.3
2. Percentage level	83.3%	68.3%	58.3%	38.3%
3. Maximum Score	6.0	5.5	4.7	3.7
4. Minimum Score	4.1	3.2	2.1	1.0
AA (Academic Achievement Score)				
1. Mean Score	91.9	86.6	83.6	70.2
2. Percentage level	91.9%	86.6%	83.6%	70.2%
3. Maximum Score	100.0	99.0	90.0	78.0
4. Minimum Score	82.0	79.0	80.0	44.0
LB (Leadership Behaviour Score)				
1. Mean Score	26.5	24.6	22.3	22.5
2. Percentage level	88.3%	82.0%	74.3%	75.0%
3. Maximum Score	27.6	26.6	23.0	23.6
4. Minimum Score	24.9	22.7	21.1	21.9
OC (Organisational Climate Score)				
1. Mean Score	5.2	4.0	1.3	1.6
2. Percentage level	86.6%	66.2%	21.7%	26.7%
3. Maximum Score	6.0	6.0	2.0	3.0
4. Minimum Score	4.0	1.0	1.0	1.0
CP (Change Proneness Score)				
1. Mean Score	2.8	2.6	2.4	2.1
2. Percentage level	70.0%	65.0%	60.0%	52.5%
3. Maximum Score	3.3	2.9	2.7	2.4
4. Minimum Score	2.2	2.3	2.1	1.5
TM (Teacher Morale Score)				
1. Mean Score	6.0	5.3	5.0	2.9
2. Percentage level	66.6%	58.9%	54.4%	32.2%
3. Maximum Score	7.6	7.3	5.9	4.5
4. Minimum Score	4.5	3.7	3.7	1.4

(a) Innovative Index Score Level : The percentage level of the mean II scores of the 'high', 'average' and 'low' innovative schools are above 58% and that of the 'non-innovative' schools is below 40%.

(b) Academic Achievement Score level : The percentage levels of the mean AA scores of the 'high', 'average' and 'low' innovative schools are above 83% and that of the non-innovative schools is just 70.2%.

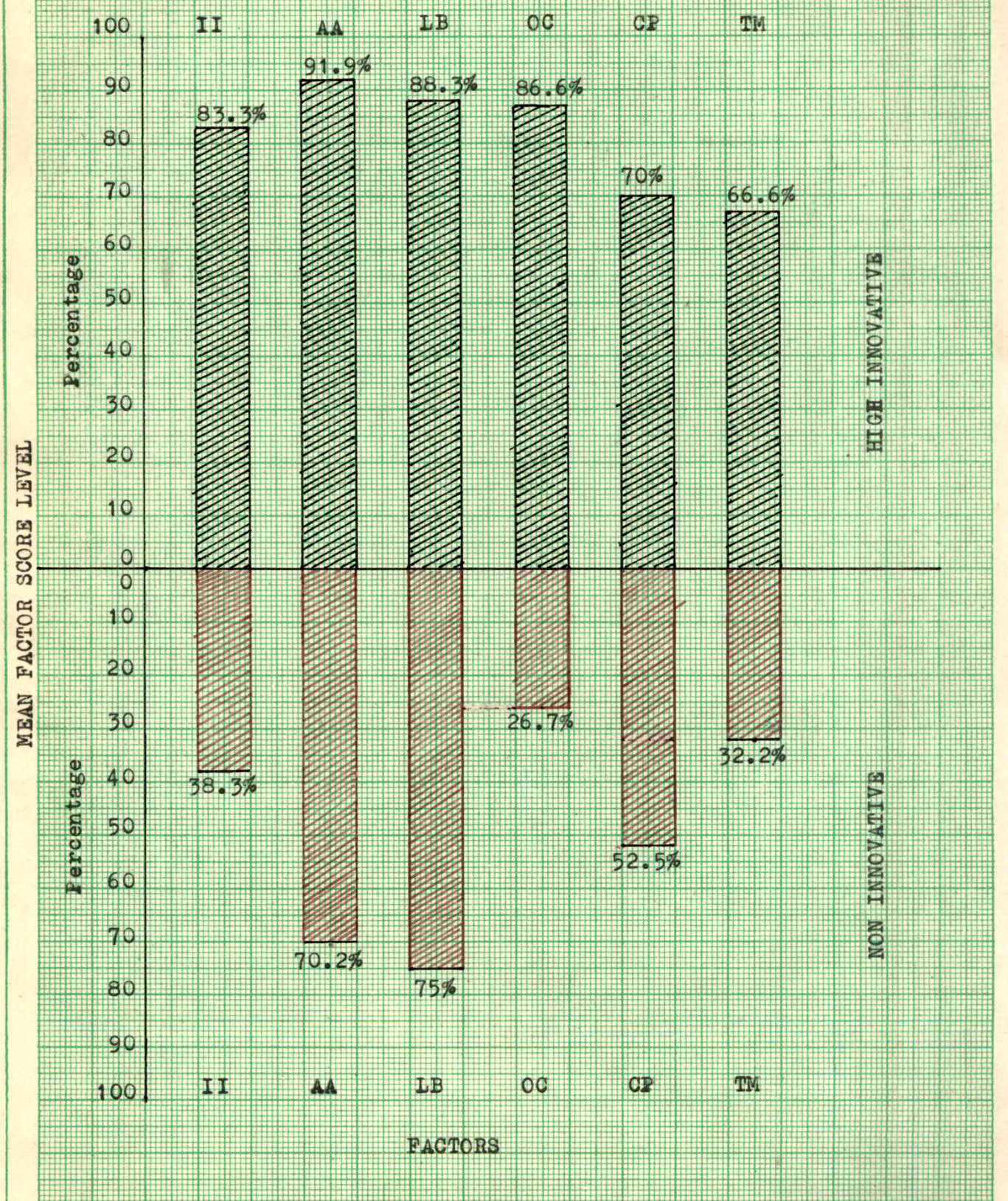
(c) Leadership Behaviour Score level : The percentage levels of the mean LB scores of the 'high', 'average' schools are above 80% and the 'low' as well as the 'non-innovative' schools are below 76%. The percentage level as well as the individual minimum and the maximum scores of the 'non-innovatives' schools are 'higher' than the 'low' innovative schools in the case of the factor LB. However, the LB scores of the 'high' and 'average' innovative schools are distinctly higher than the 'low' and 'non-innovative' schools. The 'Leadership Behaviour' is not a distinctly discriminative factor between the 'low' and 'non-innovative' categories of schools, or in other words the leadership behaviour traits are found to be the same in the 'low' and 'non-innovative' schools as far as this study is concerned.

(d) Organisational climate score level : The percentage levels of the mean organisational climate scores of the 'high' and 'average' innovative schools are above 65%. While those of the 'low' and 'non-innovative' schools are below 27%.

The mean score, percentage level as well as the individual maximum score of the 'non-innovative' schools are higher than those of the 'low' innovative schools.

GRAPH - I

Factor Profile : Opposed bar-graph comparing the mean factor score levels of the 'High' innovative schools with 'Non' innovative schools.



This shows that the organisational climate of the 'high' and 'average' schools tend to show a tendency towards 'openness' while the 'low' and the 'non-innovative' schools show a tendency towards 'closedness'.

(e) Change proneness Score level : The percentage levels of the mean CP scores of the 'high','average' and the 'low' innovative schools show a'60% and above' level. While that of the non-innovative schools is below 53%.

(f) Teacher Morale Score Level : The percentage levels of the mean TM scores of the 'high', 'average' and 'low' innovative schools are above 54% while that of the 'non-innovative' schools is below 33%.

(8) The percentage levels of the aach one of the six factors in the case of 'high' and 'average' innovative schools show an over-all levels of above 60%. In the 'low' innovative schools except the factor 'OC', all the other factors show an overall level of above 50%. In the 'non-innovative' schools, the factors II, OC, and TM show the percentage level as below 40%. In the remaining three factors viz: AA, LB and CP though the 'low' innovative schools show the percentage levels as 'above 50%' and the respective levels are much below the percentage levels of the 'high' and 'average' innovative schools.

(9) Among the 'average' innovative schools, both the factors OC and LB are found to be below the respective MSSL in 4 out of 8 schools.

(10) Among the 'low' innovative schools, both these factors OC and LB are found to be much below the MSSL.

(11) Among the 'non-Innovative' schools, all the factors show below MSSL.

(12) As far as the organisational climate factor is concerned, only the 'high' innovative schools show a clear tendency towards 'openness'. Among the 'average' innovative schools, only 40% show the tendency towards openness. All the rest of the schools among the average, low and non-innovative schools show a tendency towards 'closedness'.

(13) The difference between the percentage levels of the factor scores of the 'high' innovative schools and the 'non' innovative schools is the highest (59.9%) with respect to the factor 'OC' while the 'lowest' (13.3%) with respect to the factor 'LB'.

4. Verification of the hypotheses :

With the limitations of the case-study which is not like the 'normative' studies, the hypotheses stated in Chapter III have been verified to the possible extent:

(1) The data from the tool SPD and the tool BCL give the following information : (a) The members of all the 'high' innovative schools feel that they have 'adequate' physical facilities in their schools. (b) Among the 'average' innovative schools, 3 out of 8 schools have expressed 'inadequacy'. (c) All the 'low' and 'non-innovative' schools have expressed inadequacy.

(2) Generally 'Innovative' schools have clear objectives and goals for their institution.

(3) Generally all the members of innovative schools have linkage with resource systems through contacts with mass-media, invited special resource persons and attending in-service courses.

(4) Generally all types of managements exhibit supporting attitude to innovative practices in their schools. Most of the private managements make authority innovation-decision but allow the adopters to have clear roles in taking collective decision about planning the process of adoption.

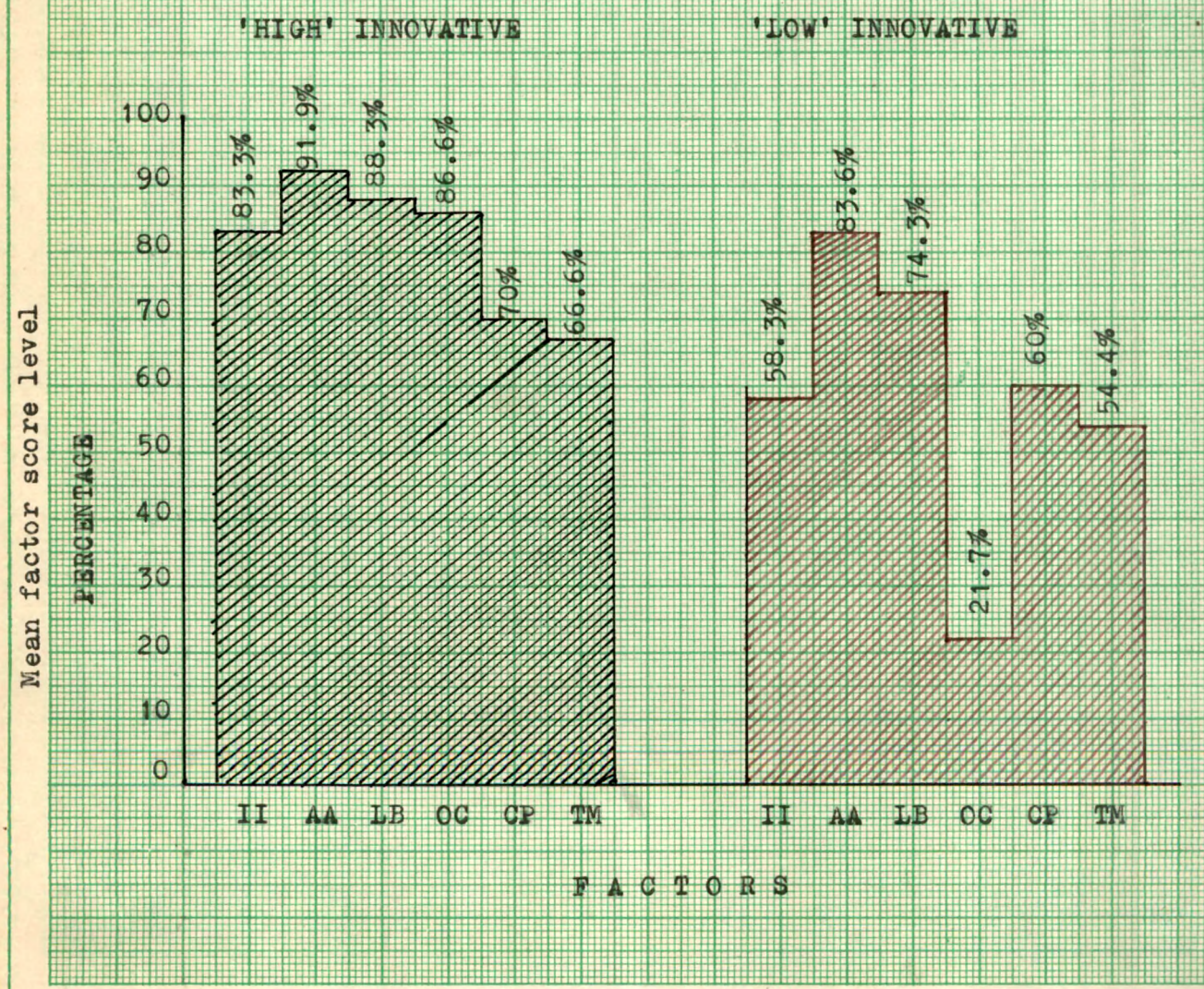
(5) In almost all the innovative schools, the self-perception of the members of the staff shows that irrespective of age almost all of them belong mostly to the first two categories viz: 'Early Adopters' and 'Early Majority'. Only in a very few instances, a smaller percentage of staff are perceived as 'late majority'.

'Laggards either never exist in an innovative system or perhaps their existence is so meagre as not to affect the innovative practices of the school, as perceived by the staff themselves.

GRAPH - II

Factor Profile :

Histograms showing the differente in the mean factor score levels between 'High' and 'Low' Innovative schools.



(6) The staff rated LB score shows a very high percentage (88.3%) level of the mean score in the high innovative schools, 82% and 74% in the 'average' and 'low' innovative schools respectively.

(7) The self rated scores for the factor of 'change proneness' of the staff in the various schools, show the percentage level of the mean score of all the 'high' innovative schools as 70%, and that of the 'average' innovative schools as 65% and the 'low' innovative schools as 60%.

(8) The self-ratings of the Teacher-morale factor in the various schools indicate the percentage level of the mean TM scores of 'high' innovative schools as 66.6% 'average' innovative schools as 58.9% and the 'low' innovative schools as 54.4%.

(9) The Organisational Climate of the 'high' innovative schools alone shows a 'clear' tendency towards 'openness' while the 'average' and 'low' innovative schools show a tendency more towards 'closedness'.

(10) In most of the innovative schools the 'authority' plays the opinion-leader role. In a few instances some of the members of the staff themselves are trained and used by the authority to play that role, for creating a favourable opinion towards innovation-adoption. (The 'authority' refers to the headmaster or any other member of the administrative unit of a school in this context).

(11) The change-agent role also is played, mostly by the authority (usually the headmaster) in the innovative schools. Since the headmaster is always available in the school, the adopters or members of these schools have adequate contact with the change agent. Therefore, it could be said that there is more change-agent-client contact in the innovative schools.

(12) The Academic Achievement Score of the 'high' innovative schools shows the percentage level of the mean as 91.9% 'average' innovative schools as 86.6% and the 'low' innovative schools as 83.6%. The innovative schools have a higher pupil-academic achievement.

5. Findings of this study supported by earlier researchers:

(1) Time lag : There is no time-lag between the innovation-decision and adoption if the innovation decision is the authority-decision and the authority-structure has the maximum power-concentration.

/Supporting : Nil; Not supporting: Ross(1962), Allen (1956)/.

(2) Rate of adoption : The rate of adoption is faster if the adopters have the freedom or autonomy for collective decision of the adoption-process.

/Supporting : Ross (1962), Rai (1972)/

(3) Authority's attitudes and expectations : When the authority shows a clients'-need oriented attitude in his approach, the expectations of the authority on innovation creates an inward pressure on the adopters to innovate.

/Supporting : Ross (1962)/

(4) Source of the innovative ideas : (a) Problems and needs of the school (b) any one of the members of the administrative body viz: the founder, secretary or the headmaster himself. (c) the staff and students themselves (d) in-service courses and (e) journals or books or training colleges.

/Supporting : The above order of priority is accepted by Subba Rao (1967) except the item (a)/

(5) Physical facilities : The innovative schools have adequate facilities with special reference to the following : (a) general physical plant (b) laboratories (c) libraries (d) playgrounds (e) journals and magazines.

/Supporting : Subba Rao (1967), Ashma (1974)/

(6) The favourable features of the headmaster : (1) high initiating structure (2) high consideration for staff (3) linkage with resource system (4) good rapport with teachers and pupils (5) inter-personal medium of communication (6) thrust (7) low production emphasis and (7) resourcefulness.

/Supporting : Bhogle (1969), Pratiba (1969) Rai (1972), Buch (1973), Miel(1956)/

(7) Order of priority of perceived attributes of innovative practices: The adopters' perception of the attributes of the innovative practices and their order of priority for accepting them for adoption

effect the innovativeness of school. 'Relative advantage' is given the first place.

/Supporting : Wilkening (1952), Ross (1952), Bhogle(1969), Rai (1972), Bhagia (1973)_/

(8) Factors that generally contribute favourably for innovation adoption : (a) Dynamic Leadership of the head (b) progressive outlook of the managing committee of the school (c) System affinity of teachers and their cohesion (d) watchful and alert pupils and community.

/Supporting : Pratiba (1969)_/

(9) Creating innovation-need-awareness among the adopters : An innovative system often creates innovation-need-awareness among the adopters to effect the adoption favourably.

/Supporting : Griffin & Pareek (1970), Bhagia (1973)_/

(10) Linkage with resource system : Voluntary and frequent linkage of the authority and adopters with resource systems is a characteristic of innovative schools.

/Supporting : Rai(1972), Buch(1973), Mukhopadyaya(1975)_/

(11) Parents' involvement : Parent and community awareness and involvement in the school practices play an important part and are found to be the features of highly innovative schools.

/Supporting : Buch(1973), Mort and Cornell (1948), Begg(1947), Fisk (1950), Gallagher(1949)_/

(12) Adequate planning for adoption : Innovative systems arrange for adequate planning before adoption of innovation.

/Supporting : Bhagia (1973)_/

(13) Adopters' Innovation-goal awareness : Innovative institutions take efforts to bring about a clarity in the perception and awareness of goals of innovation among the adopters.

/Supporting : Ashma (1974)_/

(14) Favourable category of adopters : The 'high' innovative schools have no 'laggards' in the system and the adopters belong to favourable categories of adopters.

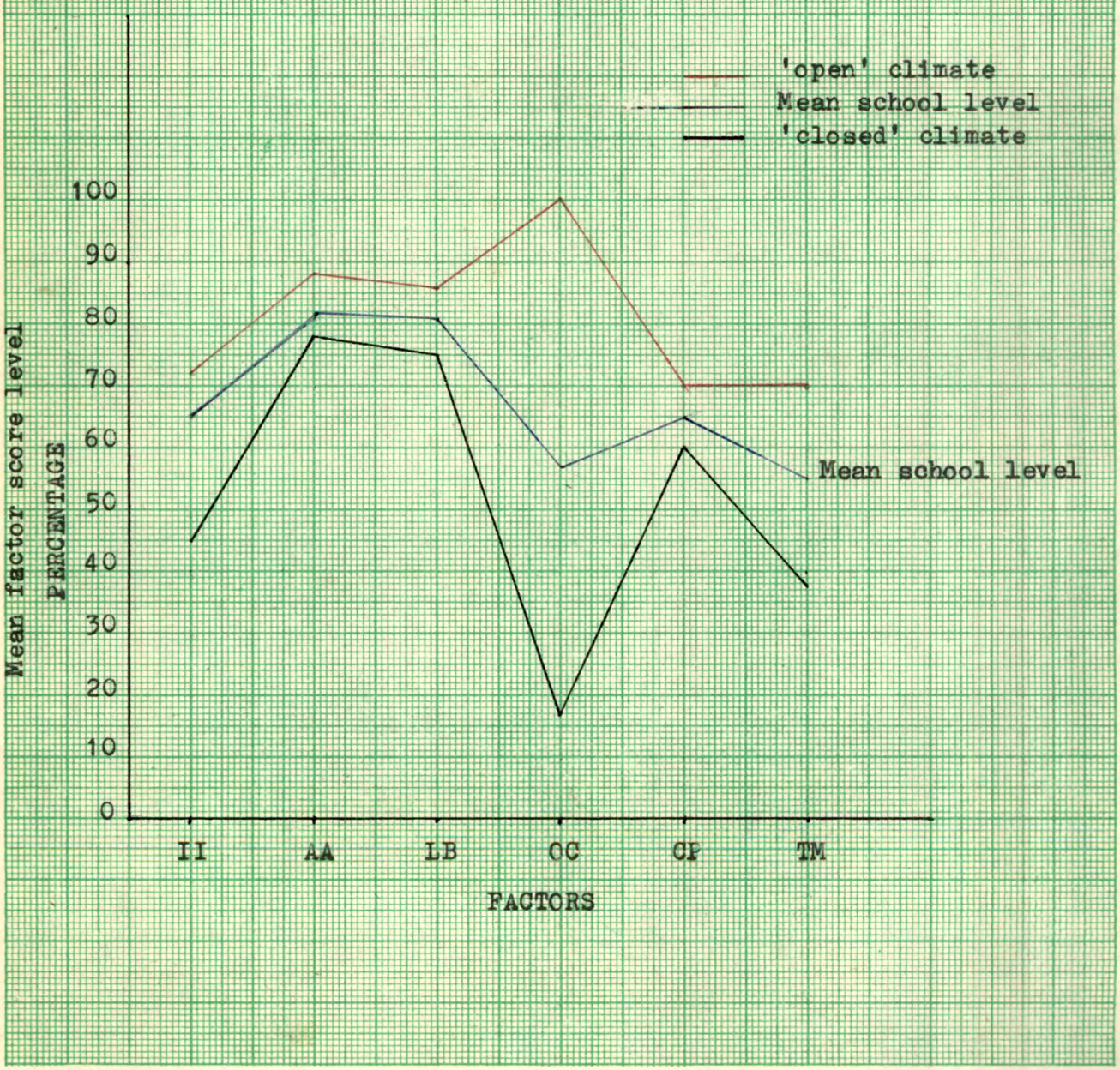
/Supporting : Ashma(1974), Maniel & Lucio(1969)_/

GRAPH - III

Factor Profile :

Frequency curves showing the difference in the mean factor score levels (in percentage) between the schools with 'open' and 'closed' organisational climates. (shown against the mean school level).

		II	AA	LB	CC	CP	TM
Open	:	73%	89%	87%	100%	70%	70%
Closed	:	47%	78%	75%	17%	60%	39%
School mean	:	65%	81%	81%	57%	65%	56%



(15) Source-credibility of the headmaster : The headmasters of high innovative schools have higher source-credibility for innovative ideas.

/Supporting : Mukhopadyaya (1974)/

(16) Change-agent role : The headmasters of high innovative schools play the role of the change-agent in their system.

/Supporting : Ebey(1940), Skogsberg (1950)/

(17) Change agents success : A change agent is successful to the extent he is clients'-need oriented.

/Supporting : Erasmus(1961), Rogers (1966)/

(18) Evaluation of innovation : The success of the change-agent is related to his efforts in increasing his clients' ability to evaluate innovation.

/Supporting : Sasaki (1953), Castillo (1967)/

(19) Vested interests of adopters : Vested interests of adopters are found to adversely affect the adaptability of the school.

/Supporting : Eastmond (1951)/

(20) Teacher Morale : High innovative schools have higher level of teacher morale.

/Supporting : James Kemedy(1965), Bickert(1968)/

(21) Organisational Climate : The organisational climate of the 'high' innovative schools are 'open' or tend towards 'openness'. The innovative factor shows deterioration along with difference in degrees of schools in their climates leaning towards 'closedness'.

/Supporting : Miles(1965), Kumar(1972), Pillai(1973)/

(22) Mode and media of communication : In the innovative schools the mode of communication is direct and the medium is inter-personal between the authority and his subordinates.

/Supporting : Van-den-ban(1964), Kimborough(1959)
Liphan(1960), Miel(1956)/

(23) Headmaster's employee-orientation Vs production orientation: In 'high' innovative schools the headmasters show 'low' production emphasis and 'high' employee-oriented behaviour.

/Supporting : Michigan studies(1965)/

(24) The situational variables of the system : (a) Leader-member relationship (Headmaster-teacher rapport) and (b) The power and authority in the position of the leader. These two variables decide whether a situation in the system is favourable to a leader or not. 'High' innovative schools show 'favourable' situations (favourableness is the degree to which the situation enables the leader to exert his influence over his group).

[Supporting : Fred.E.Fielder (1969)]

(25) Value-orientation of institutional objectives : The objectives of 'high' innovative schools have higher 'value-orientation'.

[Supporting : Kumar (1972)]

(26) Teacher morale and pupils' academic achievement : Higher the morale of the teachers of an institution, better the academic achievement of the pupils in it.

[Supporting : Redefers (1954), Pillai (1974)]

(27) Teacher morale and operational efficiency of a system : Higher the morale of the teachers of a system better is its operational efficiency in terms of innovative standards. (High innovative schools have higher TM Score).

[Supporting : Lickert (1941)]

(28) Teacher morale and teacher-pupil rapport : Pupils of those schools with higher TM score report to have good rapport with their teachers.

[Supporting : Hodges(1956), O'conner(1958) Cohen(1959), Rosi(1960)]

(29) Teacher-morale and Headmaster-teacher rapport : The headmasters of those schools with higher TM score, report to have good rapport with their teachers.

[Supporting : Synder(1945), Bernstein(1959)]

(30) Teacher-morale and headmaster's categorisation of his staff into adopter categories :

In those schools with higher TM scores the headmasters have perceived their staff to belong to the favourable categories of adopters and there is no 'laggard' in their perception.

[Supporting : Lickert (1941)]

(31) Organisational Climate and Teacher-morale : There is positive relationship between TM and OC of schools. Majority (65%) of the schools with high (above 60%) TM score have either 'open' organisational climate or a climate very near to 'open'.

/Supporting : Shelat (1975), Pillai(1974)/

(32) Leadership behaviour and Teacher-morale : Schools with higher score (above 76%) for leadership behaviour have correspondingly higher score for teacher-morale. There is a positive relationship between the leadership behaviour and teacher morale.

/Supporting : Darji(1975), Pandya(1975), Franklin(1975), Pengnu(1976), Choksi(1976), Tikmani(1976)/

(33) Change proneness as a predictor of innovativeness : (i) Innovative schools are not distinctly characterised by high scores for the change-proneness of the teachers. (ii) Change-proneness of teachers is found to be a less reliable predictor of innovativeness.

/Supporting : Mukhopadyaya(1975)/

6. A few major factors differentiating the 'Innovative' schools from 'Non-innovative' schools:

(The(same)following factors differentiate between the three levels of the innovative schools [illegible], viz: 'high', 'average' and 'low' depending on the'indications'shown in the brackets against the respective factors).

(1) Source of the innovative idea : (existing within the system/adequate or inadequate clarity among the adopters about the source)

(2) Objectives of innovation adoption : (perception of the authority and the adopters/lack of awareness of adopters about the objectives)

(3) Objectives of the institution : (clarity and value orientedness)

(4) Preparation of adopters for innovation: (adequate/inadequate/no preparation)

(5) Implementation : (voluntary function/imposed function)

(6) Interest : (adequately motivated adopters/inadequately motivated)

(7) A stage of mental evaluation through mental trial: (precedes the adoption stage/does not exist).

(8) Type of change : (open minded approach of the adopters/not so).

(9) Process model of change : (problem solving/social-interaction/ in definiteness)

(10) Factors contributing to system effect:

(a) Authority's attitude to change : (favourable/unfavourable).

(b) Relationship between adoption unit and the decision unit: (homophily/heterophily).

(c) Tradition : (existence/non-existence, desirable/undesirable).

(d) Autonomy to adopters for planning the process of adoption: (adoption-decision): (given/not given).

(e) Incentives or rewards for innovativeness: (provided/not provided in the system)

(f) Concentration of powers in the position of the authority: (high/low/nil).

(g) Professional awareness legel of the adopters : (high/low).

(h) Direction of flow of communication between the authority and the subordinates: (upward/downward; one way/two way).

(i) Clients'-need oriented attitude of the authority: (present/ absent)

(j) Techniques of institutional goal focus: (adequatelyemployed by authority/inadequate).

(k) Peer-ascribed leadership among adopters: (existent/nonexistent).

(11) Linkage with resource system : (Frequent/adequate/poor).

(12) Authority innovation-decision: (authority with power concentration/ without)

(13) Innovation goal awareness of adopters : (adequate/inadequate).

(14) Individual role-awareness: (adequate/inadequate).

(15) Mode of communication of innovation: (direct/indirect).

(16) Medium of communication : (interpersonal/circulars).

(17) Phases of change : (Systematic/un-systematic).

(18) Opinion-leadership : (existent/non-existent).

(19) Change-agent role : (played by the authority/adopters/by no one; effective/ineffective).

(20) Consequences of innovation: (functional/dysfunctional).

(21) Order of priority of the perceived attributes of innovative practices: ('Relative advantage' and 'compatibility' in the first two places/otherwise).

(22) Self-perceived categories of adopters: (favourable/unfavourable).

(23) Procedure of evaluation of innovation: (stream lined/not planned).

(24) Resistance : (existent/nonexistent).

(25) Barriers : (More/less/nil).

(26) Authority : (level of change-proneness, attitude to change, duration of his stay in the system, close supervision of the system, level of professional awareness, linkage with resource system and cosmopoliteness).

(27) Adopters : (cohesiveness, professional-awareness level, homophily with authority, free from vested interests, linkage with resource system, and localite or cosmopolite tendencies and system affinity).

(28) Pupil role : (Active/passive, goal and role-awareness and role-performance, home background).

(29) Parents and society : (level of awareness, interest and involvement

(30) System (school) : (Adequate physical plant, general facilities, provision for incentives, level of linkage with agencies outside the system).

(31) Innovative Index Score : (High/average/low/poor).

(32) Academic Index Score : (High/average/low/poor).

(33) Leadership Behaviour Score: (High/Average/low/poor).

(34) Organisational climate : (open, autonomous, controlled/familiar, paternal, closed.

(35) Change-proneness score : (high/average/low/poor)

(36) Teacher-morale score : (high/average/low/poor).

7. Barriers to change :

Some of the barriers listed in the tool 'Barriers Check list' (BCL), are found to have been checked by more number of headmasters and staff individually, to indicate that those barriers exist in their systems concerned. Only those barriers which have been repeated more often in some instances and often in some other instances are given below school-categorywise:

(a) 'High' and 'average' innovative schools : (i) Want of time (ii) Heavy syllabus (iii) The examination-oriented system of education (iv) Non-availability of adequate resource systems. These four are the frequently repeated barriers by the respondents, both the head-masters and the staff. It could be observed that all the four 'barriers' are more 'universal' in nature.

(b) 'low' Innovative Schools : In addition to the four universal barriers indicated by the high innovative schools, this category of schools have indicated a few others also, viz: (i)Inability

of the staff to sustain interest till the end (Headmasters' response), (ii) want of sustained encouragement from the authorities (staff response). (iii) group-interests among staff (iv) lack of support from the society (v) vested interests of staff outside the school practices (vi) Inadequate sources like journals or magazines for new ideas and (vii) Inadequate parent-teacher contact.

A few headmasters and a few members of the staff in the 'low' innovative schools have indicated each other's attitude as the barrier; In one or two instances the staff are found to feel that their headmasters have no faith in their staff and is more authoritarian in his approach and they feel that the innovations are imposed from above when there is no need for such an innovative practice.

(c) 'Non' innovative schools : The respondents from the non-innovative schools have indicated a variety of barriers to exist in their schools. Almost all the above mentioned barriers in the high and low innovative schools have also been mentioned by these respondents. In addition to them, the following are also mentioned in the BCL more frequently in each non-innovative school : (i) Divided groups of staff (ii) interference from higher authorities (ii) lack of appreciation from any source (iv) lack of guidance from higher authorities (v) want of suitable member of the staff to inspire the other staff (vi) Fear of (staff) additional work (vii) Inadequate-relationship between headmaster and the staff. (viii) Influence of the neighbour institutions (ix) One or two negative elements among the staff influencing the others (x) Innovations are just imposed and never suggested (xi) Lack of resource-funless of the headmaster (xii) Inadequate planning at the initial stages (xiii) Bossing attitude of the headmaster (xiv) lack of tradition in the system and (xv) negative attitudes and tendencies of pupils.

The barriers indicated by the respondents of the non-innovative schools are found to show a mutually fault-finding attitude between the authority and the subordinates. Lack of faith in the system and its practices is one of obvious characteristics of the members of the non-innovative systems.

8. A few unique practices :

A few unique practices that are found to favourably affect the functional or operational efficiency of the individual systems have been selected from case-studies and reported below. Thse unique practices have two characteristics about them, viz: (1) they are so simple but effective that any school can start adopting them if they so desire and (2) They are found to create a good system-effect on the individual members of the concerned system in relation to innovation-adoption or improving the general tone of the system.

(1) Voluntary efforts of the system for continuous evaluation of the system and its practices by knowledgeable, external agencies: Inviting a stream of distinguished and learned visitors into the school as frequently as possible, show them round and getting their critical observations recorded in a separate note-book. This record is circulated among the staff and parents. This helps to create an innovation-need awareness among the members for maintaining modern norms in their innovative practices. The headmistress plans for this.

(2) Variety of opportunities of pupils : The headmaster asking his pupils to plan, participate and present various programmes for radio broadcasts and TV broadcasts. Allowing pupils to plan themselves and organise regional science fairs and exhibitions for schools.

(3) Clients'-need oriented approach of the authority: Creating provision in the system to render monetary and other types of assistance to the individual members of the staff when they are in need. Mass attendance of the staff headed by the authority, at the teachers' domestic functions (deaths and marriages) and visiting sick relatives of staff in the hospitals help to build up the system-affinity among the members.

(4) Place for teachers on the school managing committee : Involving the members of a system in planning the policies and practices of the school increases the sense of commitment among other members (provided the method of selecting of the right member is carefully handled).

(5) Creating opinion leadership among adopters : The authority selects the peer-ascribed leaders from among the staff and build the element of opinion-leadership in them to get the entire system into an idea or adoption of a practice.

(6) Headmaster setting an example : In one of the schools, the headmistress prepres articles on what they practice in their school and publishes them in journals, gives model lessons herself for radio-broadcasts. The model of the authority is found to have an infections effect especially when there is adequate power in the position of the authority.

(7) Training the pupils for innovative practices : In one of the schools, there is a pupils' suggestion box in which pupils post their problems and needs along with a possible practical solution. If found feasible by the authority, the pupils will go into action on their own suggestions under the guidance of their teachers. Pupils could be trained for diagnosing system's deficiencies and suggesting remedial measures that are feasible for practice.

(8) Utilising the Parents for system appraisal : Circulating periodical publications (a monthly or quarterly bulletin or news letter) from the school carrying information about latest achievements of the school and those who helped such achievements, among the parents for their appraisal, helps to keep the system under constant watch from interested persons. Feed-backs from the parents and the reaction of the system to the feed backs are published in the next issue that is published from the school.

(9) Provision for incentives of individual innovativeness : The school publications carry the photographs and names of the pupils and teachers along with their creditable and original contributions to the system's efficiency. The authority praising the individuals openly in the pupils' mass assembly also found to have a similar effect in one of the schools.

(10) Techniques of goal focus : Having clear goals for an institution and constantly reminding the staff and pupils about the goals, providing incentives for goal-oriented activities of the adopters, carving the ideals of the school on stones and erecting them at central places and printing them in school diaries and calendars are found to be some effective techniques of keeping the institutional goals into the focus of the members of the institutions in one of the 'high' innovative schools.

(11) Using parent-teacher association for the advantage of the institution : In two of the 'high' innovative schools, the forum of parent-teacher association has been used to influence the parents to institute medals and rolling trophies for providing incentives to the innovative members (pupils) of the system.

9. The types and areas of Innovative practices in secondary schools:

The responses of the headmasters to the items in the 'Innovative Practices Check List (IPCL) show that there are more than 80 types of innovative practices generally in vogue in the secondary schools of the state of Tamil Nadu. These practices could be broadly classified into six areas viz: (a) Academic (b) Classroom instruction (c)co-curricular and extra-curricular (d) Administrative (e) Examination and evaluation and (f) Pupil development and records.

The following table shows the number of innovative practices adopted in each of the six areas shown in the IPCL in more than 50% of the innovative schools of this study.

Table 67 : The types, areas and number of innovative practices adopted in secondary schools.

Sl. No.	AREAS	Total No.of items (practices) given in the (IPCL)	No.of practices adopted in more than 50% of Schools	%
1.	Academic	4	2	50
2.	Classroom Instruction	25	16	64
3.	Co-curricular and Extra-curricular	12	10	81
4.	Administrative	16	11	67
5.	Examination and Evaluation	20	6	30
6.	Pupil-development & record	6	3	50

The non-innovative schools are found to have adopted less than 20% in each area.

It could be seen that more number of innovative practices pertain to classroom instruction. This shows that AA of pupils is given top priority by all the schools, and more attempts are made in that direction.

10. A few incidental findings:

(1) The innovative schools differ in their innovative levels.

(2) Most (85%) of the popularly innovative schools studied here belong to the category of private aided schools under private-managements.

(3) 75% of the innovative schools are 'urban' schools.

(4) Among the innovative schools (N=20) of this study, 20% of them are exclusigely for boys, 45% of them exclusively for girls and 35% of them are mixed schools.

(5) Among the 5 non-innovative schools, all of them are 'urban', 2 of them for boys only, 1 of them for girls only and 2 of them are mixed schools.

(6) Among the 'high' innovative schools (N=9) 4 of them are exclusively for girls, 3 of them are mixed and 2 of them are exclusively for boys.

(7) Among the average innovative schools (N=8) 3 of them for girls, 2 of them for boys and 3 of them are mixed schools.

(8) Among the 'low' innovative schools (N=3) 2 of them are girls and 1 of them is mixed.

(9) Among the innovative schools (N=20) 65% of them have organisational climates showing the tendency towards 'openness'(Open = 6, autonomous = 3 and controlled = 4) and 35% of them show the tendency towards 'closedness' (familiar = 3, Paternal = 0 and closed = 4).

(10) Among the non-innovative schools, (N=5) all of them show a clear tendency towards a 'closed' organisational climate (Familiar = 1, Paternal = 1 and closed = 3).

(11) It is found that more the surface area of the 'polygon' of the respective school in the 'school profile' diagram, higher is the innovative level of the school. All the 'non-innovative' schools have much less surface areas in their individual 'polygons', as shown in the concerned school profile diagrams.

11. Role and opinion of the District Education Officers (DEO) :

Totally 8 District Education Officers were interviewed for this study. All of them expressed similar views about their roles as DEOs. The summary of the data collected is presented below:

(1) The role of a DEO is more administrative and supervisory than academic in relation to schools and their practices.

(2) The administrative role includes the following : (a) Arranging the centres for public examinations in his jurisdiction. (b) Keeping the examination papers under his custody. (c) Attending the meetings arranged by the district collector, the chief education officer and director of school education. (d) Conduct the needed enquiries on the complaints received from the schools in his jurisdiction. (e) Scrutiny of school records and accounts.

(3) The academic role of the DEO : (a) Supervise the general classroom discipline in a school. (b) evaluate the teaching of individual teachers and suggest improvements. (c) Suggest general improvements and render clarifications on circulars issued to schools by the department of education on school practices.

(4) Role in innovation of schools : (a) The office of the DEO is obliged to suggest new ideas, wherever necessary in the general interest of the schools. (b) They may inter-communicate innovative ideas among schools for practice to the schools which are not obliged to carry out or adopt.

In short the role of the DEOs does not contribute to the innovativeness or functional efficiency of schools. It is more supervisory in nature. This helps to maintain general uniformity and check deviations from the routine conduct prescribed for the schools by the Government through the Education Department.

12. Scope for further research :

In addition to what has been studied in this investigation, an in dpepth study of the following factors would be able to reveal the cause and effect relationship between the traits of the institutions and their levels of innovativeness.

Areas suggested for further research : (1) Level of Achievement motivation and the system effect on individual adopters of an innovative system. (2) Factors affecting the relative earliness (time-lag) of the adoption of innovation. (3) Head teacher role-definition in the process of innovation decision and adoption. (4) Innovation in relation to the level of linkage with resource system, cosmopoliteness and professional awareness of the authority of educational institutions. (5) Stages in the adoption process in relation to adopter-categories in innovative schools. (6) Personality traits and innovative teachers (autonomous, venturesome, assertiveness). (7) Identification of innovators and the diffusion of an educational innovation. (8) Innovator traits at the various level of adopter categories. (9) Resistance to innovation and its relationship to the types and sources of barriers in the system. (10) Causes of innovation-rejection. (11) Causes of discontinuances of innovative practices. (12) Impact of the communication process on the rate of institutionalisation of innovation.

13. Conclusion :

'Innovativeness' of a system is a factor that could be controlled by controlling the factors affecting the operational efficiency of the system. It requires a higher level of interest and effort mainly from the authorities of the concerned systems. However it is more a joint effort of the entire members of the system than the effort of any one of the units, either the authority or adopters, of a system. It is found that almost all the schools suggested by the 'Jury' as 'innovative show uniformly high academic achievement of pupils. This leads to two important assumptions that (1) the overtly observable index of a school for the society is the level of academic achievement of the pupils and (2) social rating of a school for its innovativeness is

closely linked with the academic achievement of the pupils of the respective schools. This implies that innovative practices of schools are ultimately meant for the development of the pupils. The findings of this study might help the schools to develop their systems in the right direction.

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