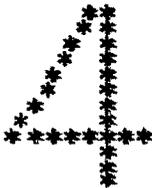


CHAPTER IV

An important criterion, perhaps the major one for judging the quality of a supervision act, is whether it promotes or hinders creativity. An older teacher says to a younger one, "I wouldn't try group work. We've never done that here. You'll learn that all the theory you heard in college is impractical". The older teacher is destroying the desire of the new teacher to be creative. A principal remarks, "Your pupils were certainly noisy to-day". Without bothering to discover what was going on in the class-room he establishes barriers that may prevent the teacher from trying creative drama again. A supervisor comments, "That mural seems to represent real pupil thinking, planning and cooperation. I'd like to see how you do it. Will you invite me to visit the next time the class undertakes a project like that?" This time the supervisor is giving encouragement and the chances are good that the teacher will call on him for help when a more difficult creative project is undertaken.

- Kimball Wiles

(in "Supervision
for Better Schools")



ANALYSIS AND INTERPRETATION OF THE DATA

4.1 INTRODUCTION

In this chapter, the data yielded by the research tools and through other resources such as visits to schools and district school inspectorates, meetings with school administrators, educationists, researchers, etc., ^{the} examination of reports of some studies available to the investigator will be analysed, classified and interpreted. The major component of these exercises will be the testing of the fourteen hypotheses formulated on the important aspects of the present study.

4.2 THE EMERGENT PICTURE OF SECONDARY SCHOOLS OF THE TWO DISTRICTS

There are 434 secondary schools in the Kheda and Panchmahals Districts. They are staffed by 5,806 teachers of

which 1,051 or 18.1 per cent are women and 81.9 per cent are men. In the Panchmahals District schools, 4.59 per cent teachers are from scheduled castes, scheduled tribes and other backward classes. Of the total 434 secondary schools, 2.3 per cent are old schools established long back in the nineteenth century, 18.2 per cent between 1901 and 1947, 38.7 per cent between 1948 and 1960, i.e. before the creation of the Gujarat State and 40.8 per cent in the last fourteen years after the State came into existence.

The bulk of the schools - 87.9 per cent - are of the academic nature, 7.2 per cent are offering instruction in multi-purpose streams and 4.9 per cent are post-basic schools developed on the Gandhian model of craft-centred education.

Around two-thirds of the high schools are situated in urban areas and only one-third are in rural areas.

The average size of the school is medium. The average enrolment per school is around 360 ^{the number of} and teachers per school _{is} around 13.

The average number of high schools per 1,000 population is 0.141.

As regards the academic qualifications of ^{high school} teachers of the two districts, only 11.3 per cent have a post-graduate degree, and the remaining 88.7 per cent are either graduate degree holders or are under-graduates, in the latter case they constitute about one-fifth. Out of every 10 secondary

teachers in the two districts, 9 are trained teachers.

One supervisor each from the 219 high schools included in the sample - total 219 supervisors - were studied. Of these total supervisors, 7.7 per cent were women and 92.3 per cent were men. The percentage of girls' secondary schools in the two districts is around 7.0. The age-structure of supervisors is around 26.0 per cent belonging to the age-group of 22-35 years, 48.3 per cent belonging to the age-group of 36-45 years and the remaining 25.7 per cent belonging to the age-group 46-56 years. Thus, it can be roughly said that out of every 4 school supervisors, 1 is below 35 years, 2 between 36 and 45 years and 1 above 45 years.

A supervisor should have a sound foundation in academic subjects. He should preferably have an M.A. or M.Sc. degree in a school subject. But, only 13.7 per cent of the supervisors are M.A. or M.Sc.; 96.3 per cent of them are either B.A. or B.Sc. Even here also a comparatively better position is obtained in the Kheda District where 18.9 per cent of the supervisors have a post-graduate degree as against 8.5 per cent in the Panchmahals District. All the supervisors are trained teachers. Only 11.8 per cent of them have an M.Ed. degree where they may have received some training experience or orientation in the concept, tools and techniques of school supervision.

As regards their professional experience, 39.7 per cent of the supervisors have 11 to 15 years of experience,

34.7 per cent have 5 to 10 years of experience and 25.6 per cent have less than 5 years of experience. More experienced supervisors are found in the high schools of the Kheda District (40.0 per cent) than ~~in~~ the Panchmahals District (29.5 p.c.).

Such is the emergent picture of supervision in the high schools of Kheda and Panchmahals Districts.

4.3 TEACHERS' SENSITIVITY TO NEW IDEAS OF SUPERVISION

(Hypothesis I)

After having obtained a general picture of supervision and supervisors in the secondary schools of the two districts, an attempt will now be made to examine all the fourteen hypotheses one by one and test ^{them} ~~it~~ using appropriate statistical procedures.

The Hypothesis I is worded as under :

" The teachers of advanced district schools tend to be more sensitive to new ideas of supervision and perceive better some of the innovative instructional practices than the ^{backward} district schools."

L teachers of

The use of some evaluative criteria described in the last chapter (p. 184) has already shown that of the two districts, the Kheda District is educationally an advanced district and the Panchmahals District is a backward district. In Tool II (vide - Appendix I), the new ideas of supervision and innovative instructional practices are specified.

The new ideas in supervision are as under :

- (1) Any knowledgeable teacher who may be even a junior, can do supervision work.
- (2) Sitting in the classroom of a teacher to watch his teaching without his previous consent is an insult to his individuality.
- (3) In the supervision work done by the principal, the pressure of his position and power gets percolated, even though inadvertently. (It becomes an act of judgment by a superior of a subordinate's work.)
- (5) Visiting a class is not the only way to supervise the work of a teacher. Supervision does take place even when a supervisor has personal conferences with a teacher and he gives guidance and makes suggestions to him.
- (6) When teachers can be made aware of and are introduced to the new ways of teaching and evaluation through inservice training programmes, it is supervision done on a different plane. Professional stimulation of teachers is an act of supervision.
- (7) Supervision need not ~~be~~ ^{be} always _^ by an individual - it can be a group process.
- (8) The change process in a teacher's method of teaching should be attempted through demonstration and discussion.
- (9) Teachers are to be helped to form the habit of previous thinking and planning, ^{although} ~~not~~ _^ not on paper, daily instructional lessons.

- (10) The supervisor should be ^{full-time} whose entire duty and responsibility should be ^{offering} assistance and guidance to teachers to do better instructional work.
- (11) The focus in a supervisor's work should be to guide ^{the} teachers how they can make their pupils active participants in learning.
- (12) Supervision has to take ^{the} form of term planning, preparation of unit plans of teaching and evaluation, planning of diagnostic and remedial work in the form of work books or programmed frames, etc.
- (13) A supervisor's function should be to serve as an agent of diffusion of new ideas.

The first hypothesis has two parts. Part I deals with sensitivity of teachers to such new ideas about school supervision work and Part II deals with the perception of teachers to innovative instructional practices implied in some of these ideas in the school. It is assumed that teachers of advanced district schools, i.e. of the Kheda District, would differ significantly from teachers of backward schools in respect of teachers' sensitivity and innovative instructional practices.

(a) Part I : Teachers' Sensitivity to New Ideas of School Supervision

Teachers' sensitivity was measured in terms of thirty items which are rated by the teacher respondents on a five-point scale. These items, as indicated above, refer to

opinions and attitudes of teachers towards some of the new ideas and concepts of supervision. In India, over a period of time, some set ideas of supervision have been rooted. It is, for example, believed that supervision work could be done by only one person and that too by the school principal. It is also believed that every teacher knows how to teach and that he does not need to be told about it. Persons working in social agencies often say that they possess enough knowledge about the problems of human beings and that they do not require any scientist to tell them about human problems. This type of attitude either on the part of leaders working in social agencies or in the field of education is not desirable. There are, however, some teachers who are susceptible to new ideas and concepts. They keep their minds open and evaluate the idea or concept without any bias. Teachers' sensitivity, therefore, plays an important role in bringing about changes in supervisory practices. The more sensitive a person is, the easier it is to influence him, and consequently schools with a greater number of sensitive teachers would have better supervisory practices than schools with less sensitive teachers. It is with this idea that the teachers of the two types of district schools are compared.

The total score based on the summation of the score on each item was computed for each teacher. The scores thus obtained of the two groups of teachers were then analysed by means of 't' test. The purpose was to know whether the

mean sensitivity score of the teachers of the advanced district schools differs significantly from that of teachers of the backward district schools and to know whether teachers of advanced district schools are more sensitive or not in comparison to teachers of less advanced district schools. Results are shown below :

Table 4.1 : Comparison of Mean (Sensitivity Scores) of Advanced and Backward District Schools

	N	Mean	S.D.	S.E. D.	't' Value
Advanced District School Teachers (Kheda)	444	113	14.1	1.098	18.18
Backward District School Teachers (Panchmahals)	213	93	12.96		

Where N = Total number of frequencies;

S.D. = Standard Deviation;

S.E.D. = Standard Error of Difference;

df = 655 't' at .01 level of significance : 2.59

The 't' value of 18.18, as can be seen from the above table, is significant beyond .01 level of confidence. It means that the two mean scores differ significantly. The mean score of the advanced district school teachers is 113 as against the mean score of 93 in the case of the backward district school teachers. Since there are 30 items and since

each item is rated on a five-point scale with 'five' denoting strongly agreeing position and 'one' denoting strongly disagreeing position, the total possible score would be 150. The mean score of 113 in case of advanced district school teachers is quite high in comparison to the mean score of 93 in the case of backward district school teachers.

The hypothesis that the advanced district school teachers would differ significantly from the teachers of the backward district school teachers in respect of sensitivity is thus supported. The teachers of advanced district school have also been found to be relatively more sensitive. The educational implications of the findings are immense. As observed earlier, the more sensitive teachers are more flexible and more susceptible to the influence of new ideas and concepts. Since greater sensitivity on the part of teachers provides adequate ground for introducing changes in the existing practices, measures should be taken so that less sensitive teachers become more sensitive. This also gives rise to another question pertaining to ~~the~~ sensitivity—is a personality trait and if so to what extent it can be developed. Is it that people become more sensitive to new ideas due to environmental conditions? Since the teachers of the more advanced schools have been found to be more sensitive and since they come from better school atmosphere, it reasonably follows that environmental factors play an important role in teachers' sensitivity. In the backward schools, therefore,

adequate opportunities should be provided to the teachers so that they can think with an open mind rather than think in terms of certain set ideas.

(b) Part II - Teachers' Perceptions of Innovative
Instructional School Practices

The second part of the first hypothesis deals with the perception of teachers about innovative instructional practices. For this purpose, 35 different innovative instructional practices were enlisted (vide - Tool III, Appendix I). Teachers were asked to indicate the extent to which they could be implemented. A five-point scale with 'five' denoting greatest possibility for implementation and 'one' denoting the least possibility for implementation was provided to the teachers. Teachers were asked to indicate the extent to which these items could be implemented keeping in mind their own school. It is expected that the teachers of more highly advanced schools would perceive a greater possibility for the implementation of these items than the teachers of the ^{not so} highly advanced or backward schools. These items, as could be seen from the Tool, pertain to master resource plan for institutional planning, group work, criticism lessons, teachers' instructional meetings, planning class-room education, library facilities, the use of instructional materials and aids, and training of students, education for the backward children, inservice education for teachers and the new evaluation systems. Since there are 35 items and

since each item is rated on a five-point scale, the total possible score would be 175. The total score was obtained for each teacher by summing the scores on the individual items. These scores of the two groups were then subjected to statistical analysis. The 't' test was used to ^{determine} the significance of the difference between the two means. The results are shown below :

Table 4.2 : Comparison of Mean Scores on Perception of Teachers of Advanced and Backward Schools about Innovative School Practices

	N	Mean	S.D.	S.E.D.	't' Value
Advanced School	444	139	20.2	1.4	35.7
Backward School	213	89	15.7		

df = 655 't' at .01 level of significance = 2.59

The hypothesis that the teachers of advanced district schools would differ significantly from those of the backward district schools in respect of sensitivity is thus supported. The teachers of advanced schools have also been found to be relatively more sensitive. The educational implications of the findings ^{are} significant. As reported earlier, the more sensitive ^{the} teachers are, the more flexible they become and they are more susceptible to the influence of new ideas and

concepts. Since greater sensitivity on the part of teachers provides adequate ground for introducing changes in the existing practices, measures should be adopted so that the less sensitive teachers become more sensitive. It follows from the reasoning adopted in the first part of the Hypothesis that environmental factors play an important part in teachers' sensitivity. In the backward district schools, therefore, adequate opportunities should be provided to the teachers so that they can think with an open mind rather than to think in terms of certain set ideas. The 't' value of 35.7 is significant at .01 level of confidence. The mean scores of advanced school teachers is 139 as against the mean score of 89 in the case of the backward district school teachers. This indicates that the mean perception score of the advanced school teachers is higher than that of backward school teachers. Thus, the teachers of advanced schools perceive greater possibilities for the implementation of ^{novel} instructional practices than the teachers of the less advanced schools.

The reason for perception may be ^{owing} ~~due~~ to ~~weak~~ weak leadership qualities of the principal, less resourcefulness of the teachers, lack of awareness on the part of the school management, lack of school equipments, teaching aids and more students coming from the backward class community, lack of facilities for inservice training for innovations, etc.

It should be ^{noted} ~~mentioned~~ that the teachers were asked to indicate whether it is possible in their schools to adopt

certain innovative practices and were not asked to indicate whether these practices were good or bad. The number of different practices mentioned in a questionnaire is significant. The teachers of the backward schools have expressed their inability to implement these practices in their school set-up. Certain types of practices could be implemented with a minimum cost. Group method of teaching or planning or evaluating for example requires favourable attitudes and ^awillingness to cooperate on the part of the teachers. The results clearly indicate that teachers of the backward district schools are much less inclined to do this.

This amounts to creating greater awareness of the possible advantages of the new innovative practices over the existing ones. There are certain other types of practices which involve financial and other aspects for their implementation. The whole management group may be made aware of the alternative techniques and procedures which if adopted would do a greater service to the student community at large. It is, therefore, suggested that an awakening should be created among ^{the} concerned people and effective training programme should be developed so as to train the people think creatively.

4.4 ORGANIZATIONAL CLIMATE OF SCHOOLS AND OTHER VARIABLES (Hypothesis II)

So far as ^{the} second hypothesis is concerned, it is felt that advanced schools would differ from backward schools in

respect of (a) the organizational climate of schools, (b) the size of the schools, (c) the provision of equipments in the schools, (d) the age and experience of the teachers, and (e) rural-urban location of the schools.

The Hypothesis is worded as under :

"The schools of an advanced district would differ markedly from the schools of a backward district in respect of organizational climate, background and experience of the school teachers and some of the organismic variables."

In identifying the organizational climate of the schools, Halpin and Croft's O.C.D.Q. tool was used (vide - Tool V in Appendix I). The data on the background as well as educational experience of the school teachers were collected through the proforma on the Basic Data (vide Tool I in Appendix I). The organismic variables have already been referred to in the last chapter (vide page 179).

It is clear from the wordings of the Hypothesis that the high schools of the advanced and backward district schools would differ significantly in respect of climate, background, experience and organismic variables.

It should be noted that in an earlier study by Patel¹ (1974) on leadership for instructional improvement where the sample of high schools was drawn from some selected districts of Gujarat, it was found that "slightly more than fifty per cent of the 'A' type (advanced or progressive) schools possess

more or less 'Open' or 'Autonomous' climate and in the case of the backward schools, the organizational climate was more or less 'Controlled' or 'Familiar' and the number of supervisory activities as well as the effectiveness of the supervision was more in the 'Open' or 'Autonomous' climate schools than in the case of 'Closed' or 'Familiar' climate schools. Thus, a significant relationship between organizational climate of high schools and the richness and effectiveness of the supervision work was established by an earlier doctoral study.

This makes the present Hypothesis very significant.

The high schools in the advanced district (Kheda) and the backward district (Panchmahals) were classified on the climate continuum, using the statistical procedures used by Halpin and Croft.² The standardized scores yielded by the administration of the O.C.D.Q. and the identification of all the schools included in the sample, climate-wise are given in Appendix III. The climate-wise classification of the 219 high schools is shown in Table 4.3.

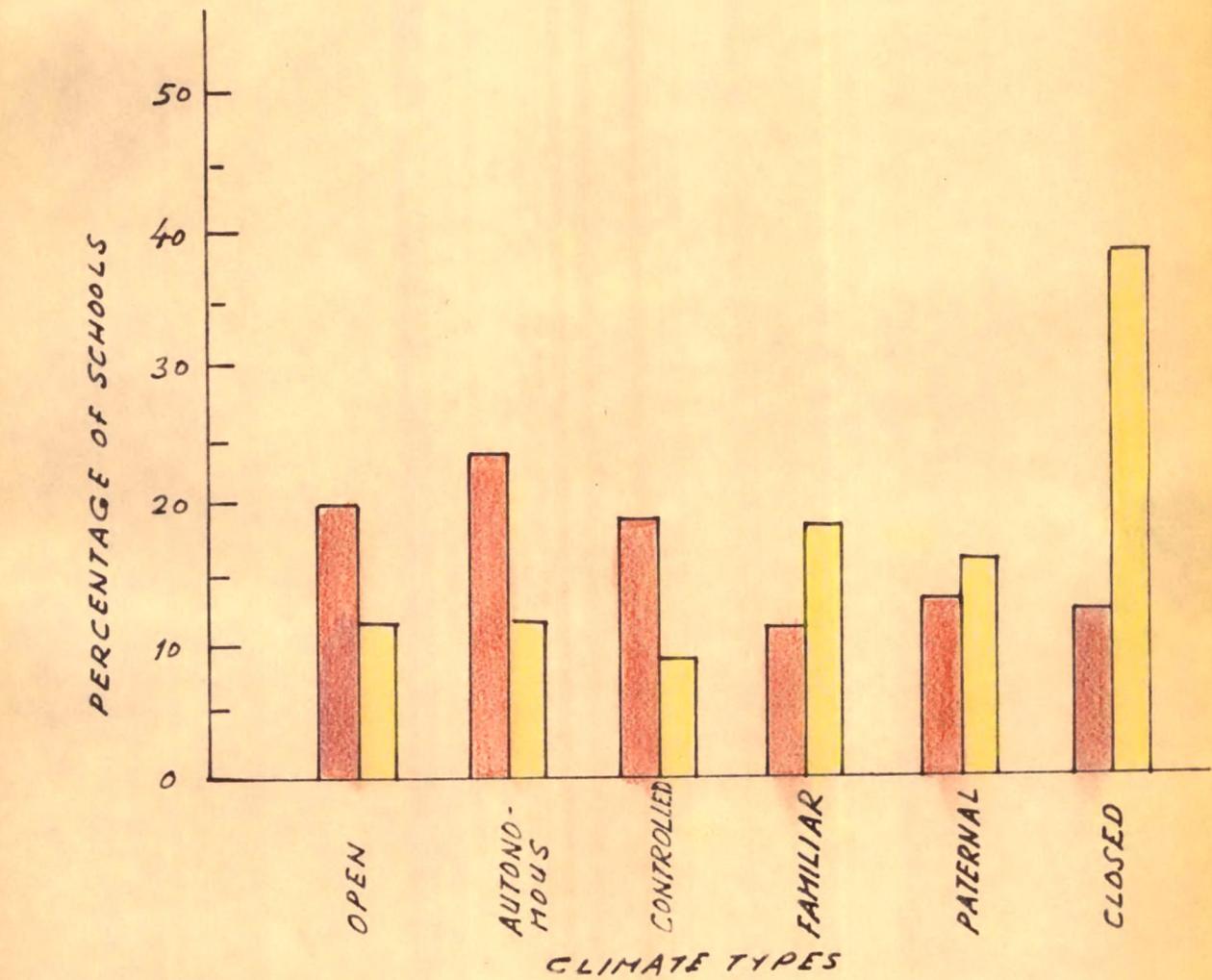
Table 4.3 : Distribution of Schools of the Advanced and Backward Districts on Climate Continuum
(Figures in the brackets indicate percentages)

Type of School	Open	Auto-nomous	Cont-rolled	Fami-liar	Pater-nal	Closed	Total
Advanced Schools	30 (20.2)	36 (24.3)	27 (18.2)	17 (11.4)	20 (13.5)	18 (12.4)	148 (100.0)
Backward Schools	8 (11.2)	8 (11.2)	6 (8.4)	12 (16.9)	11 (15.7)	26 (36.6)	71 (100.0)
Total	38 (15.7)	44 (17.8)	33 (13.3)	29 (14.2)	31 (14.6)	44 (24.4)	219 (100.0)

(Vide Chart 12)

CLIMATEWISE DISTRIBUTION OF SCHOOLS

(TOTAL SAMPLE SCHOOLS IN KHEDA DIST. & PANCHMAHALS DIST.)



% TOTAL SAMPLE SCHOOLS → 15.7 17.8 13.3 14.2 14.6 24.4

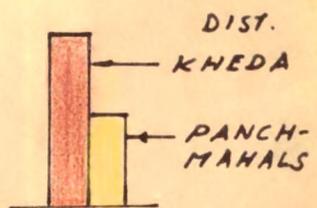


CHART - 12

It will be seen from the table that a greater number of backward district schools possess closed climate and a greater number of advanced district schools possess a relatively Open climate. In the case of advanced schools, more than 63.0 per cent of schools are having Open, Autonomous, and Controlled climate as against the corresponding ratio of 30.0 per cent in the case of the backward district schools. Therefore, the Hypothesis is sustained so far as it concerned the organizational climate of schools.

It will also be seen that in the first three climate types, viz., Open, Autonomous, and Controlled, which lean towards the openness of organizational climate, the percentages of schools falling under them are consistently higher in the advanced district schools than the backward district schools - they are respectively 20.2, 24.3 and 18.2 per cent as against 11.2, 11.2 and 8.4 per cent in respect of the backward district schools. In the last three climate types, viz., Familiar, Paternal, and Closed, the advanced district schools have 11.4 (Familiar), 13.45 (Paternal), and 12.4 (Closed) per cent which are smaller than the corresponding percentages of the backward district schools which are 16.9 (Familiar), 15.7 (Paternal), and 36.6 (Closed). In general, it can be observed that the advanced district schools stand higher in the openness of the climate and stand lower in the closeness of the climate than the backward district schools. Thus, the high schools of the advanced and backward districts significantly differ among themselves in regard to the organizational climate. To this extent, the Hypothesis II stands.

But the Hypothesis is not sustained in regard to the second selected variable of the school size. The data are summarised in Table 4.4. The figures are clear. In regard to the size of the school as reflected in the three categories of 'above 500', 'between 300 and 500', and 'below 300', the percentages of both the advanced district schools and backward district schools do not differ appreciably - the differences in the percentages of the three groups are 0.9, 0.4 and 0.5 respectively. Therefore, it can be construed that the advanced and backward district schools do not differ appreciably in the variable of school size.

Table 4.4 : Relative School Size of Advanced and Backward District Schools

(Figures in the brackets indicate percentages)

Category	Above 500 Pupils	Between 300-500 Pupils	Below 300 Pupils	Total
Advanced District Schools	30 (20.2)	42 (28.5)	76 (51.3)	148 (100.0)
Backward District Schools	15 (21.1)	20 (28.1)	36 (50.8)	71 (100.0)
Total	45(20.6)	62(28.3)	112(51.1)	219(100.0)

Table 4.5 : Distribution of the Advanced and Backward District Schools on the Basis of Equipments possessed by them
(Figures in the brackets indicate percentages)

Category	Above Average Equipments	Average Equipments	Below Average Equipments	Total
Advanced Schools	37(25.0)	55 (36.5)	56 (38.5)	148 (100.0)
Backward Schools	18 (25.3)	25 (35.2)	28 (39.5)	71 (100.0)
Total	55 (25.1)	80 (36.5)	84 (38.4)	219 (100.0)

Table 4.6 : Distribution of Advanced and Backward District Schools Urban-Rural Locationwise
(Figures in brackets indicate percentages)

Category	Urban	Semi- Urban	Rural	Total
Advanced Schools	21 (14.2)	25 (16.9)	102 (68.9)	148 (100.0)
Backward Schools	10 (14.1)	9 (12.7)	52 (73.2)	71 (100.0)
Total	31 (14.1)	34 (15.6)	154 (70.3)	219 (100.0)

Table 4.7 : Distribution of Teachers of the Advanced and Backward District Schools - Age-wise
(Figures in brackets indicate percentages)

Category	Above 35 Years	Below 35 Years	Total
Advanced Schools	246 (55.4)	198 (44.6)	444 (100.0)
Backward Schools	98 (46.0)	115 (54.0)	213 (100.0)
Total	344 (52.3)	313 (47.7)	657 (100.0)

Table 4.8 : Distribution of Teachers of Advanced and Backward District Schools according to their Teaching Experience
(Figures in brackets indicate percentages)

Category	More than 10 years	Between 5-10 Yrs.	Less than 5 years	Total
Advanced Schools	140 (31.5)	146 (32.9)	158 (35.6)	444 (100.0)
Backward Schools	65 (30.5)	77 (36.2)	71 (33.3)	213 (100.0)
Total	205 (31.2)	223 (33.9)	229 (34.9)	657 (100.0)

The second variable covered by the Hypothesis is the size of the high schools. As regards this variable, it can be seen from the table that around 20.0 per cent of both the advanced and backward district schools possess a strength of about five hundred pupils. Approximately 28.0 per cent of the advanced and backward schools possess the pupil strength between three hundred and five hundred, and around 51.0 per cent of the advanced and backward schools have a strength of about three hundred pupils. Thus, the advanced and the backward district schools do not differ in respect of the enrolment size of the schools.

The third variable in the Hypothesis pertains to the equipment of the schools. Table 4.5 shows that the advanced and backward district schools do not differ appreciably among themselves in the matter of equipments that they possess. The differences in the three categories are negligible - they are 0.3, 1.3, and 1.0 per cent. Therefore, in this respect also, the Hypothesis does not stand.

As regards the location of the schools, it is observed that around 14.0 per cent of both the types of schools are located in urban area, slightly more than 12.0 per cent but less than 17.0 per cent of them are located in semi-urban area and between 68.0 and 73.0 per cent of them are located in the rural areas. Thus, in terms of rural-urban location, the advanced district schools do not differ from the backward district schools. Therefore, in respect of this variable also, Hypothesis does not sustain.

The Table 4.7 shows the age-wise distribution of the teachers of the advanced and backward district schools. So far as the age of teachers is concerned, around 55.0 per cent of the teachers in the advanced district schools and 46.0 per cent in the backward district schools are above 35 years old. Moreover, around 44.0 per cent of the teachers of the advanced district schools and 54.0 per cent teachers of the backward district schools are below 35 years of age. On the average, the teachers of the advanced schools do not differ appreciably from those of the backward district schools in respect of their age. Therefore, in this respect also, the Hypothesis does not stand.

Table 4.8 pertains to the teaching experience of the teachers of both the categories of districts. As regards the experience of teachers, between 30.0 per cent and 31.0 per cent of the teachers of both the advanced and backward district schools possess teaching experience of more than 10 years.

The percentages falling in the experience-range of 5 to 10 years vary around 32.0 per cent to around 36.0 per cent. Similarly, around 35.0 per cent of the teachers of the advanced schools and 33.0 per cent of the teachers of the backward schools have less than 5 years of teaching experience. This also shows that in terms of teaching experience, the teachers of the two types of schools do not differ appreciably. Therefore, in this variable also, the Hypothesis fails.

The Hypothesis II is, thus partially supported only in case of distribution of climates. Some difference between the two types of schools is well marked in respect of other variables. In other respects the advanced schools do not differ markedly from the backward schools. Therefore, from this it could be said that the teachers' sensitivity and their perception of innovative instructional practices are to be evaluated in the light of other factors since the constraints relating to such factors as size, location, possession of equipments, professional experience and age of teachers are common to certain extent for both the advanced and backward district schools. One may, therefore, have a hunch that climate differences may account for differences in sensitivity to new ideas in supervision and the perception of innovative instructional practices. Besides, a number of factors in the general environmental set-up could be presumed to influence the sensitivity and the perception of teachers.

The Hypothesis is, thus, partly valid, and that also so far as organizational climate is concerned.

4.5 BENEFITS TO TEACHERS FROM SUPERVISORY SERVICES

(Hypothesis III)

The third Hypothesis reads as under :

"The present supervision work would be perceived as more beneficial by the teachers of an advanced district schools than by the teachers of the backward district schools."

The main issue is whether there is significant differences in the perceptions of the teachers of the advanced district of Kheda and of the backward district of Panchmahals in regard to the benefits that accrue from the supervisory services offered by their schools.

The Table 4.9 is based on Tool IV given in the Appendix I.

In the Hypothesis III the teachers of the advanced and the backward schools are compared with each other in regard to the benefits they perceive to have derived from supervision work done in their respective high schools. For this purpose, eighteen supervision-related activities were given to the teachers for rating on a four-point scale. Besides, they were also given nine items pertaining to the benefits to be derived from the overall supervision work. The mean rating was calculated for each item separately for the advanced ~~area~~ as well as the backward district teachers. Moreover, the chi-square value was used to study the difference, if any, between the teachers of the advanced and the backward district schools in regard to the extent to which the supervision services have proved to be beneficial to them. The Tables 4.9 and

4.10 given on the next page show that so^{far} as the benefits of supervisions are concerned, all the 18 items have been rated more highly by the advanced school teachers. Item numbers 1, 2, 6, 7, 8, 9, 10, 12, 13, and 17 have been rated to the extent of three or more ratio by advanced school teachers. Not a single item received a rating of three or more in the case of backward school teacher. The items which do not show much difference between these two types of school teachers are numbered 3, 4, 15, 16, and 18. On the whole, it appears that the teachers of the advanced schools tend to derive greater number of benefits from the supervisory services than the teachers of the backward schools. So far as the evaluation of the over-all supervision work is concerned, most of the items have been rated more highly by the advanced school teachers than by the backward school teachers. This again shows that the teachers of the advanced district schools seem to be much more benefited by the supervisory services than the teachers of the backward district schools.

Referring to the Table 4.10, it is seen that the chi-square value of 71.29 in the case of the benefits of supervision is highly significant. This means that the teachers of the advanced district schools differ significantly from the teachers of the backward district schools in the extent to which they feel they are benefited by the supervision work. Around 59.0 per cent of the teachers of the advanced

district schools as against around 28.0 per cent of the teachers of the backward district schools feel that they are benefited by the supervision work to a very great extent. The percentages of the teachers of the advanced and backward district schools falling under the last category are around 14 and 39 respectively. From this also it appears that supervision work is perceived to be much more beneficial in its various aspects to the teachers of the advanced district schools than to those of the backward district schools.

Referring now to the Table 4.10 on chi-square pertaining to the evaluation of overall supervision work, it is seen that the chi-square value of 89.81 is highly significant. The results show that around 58.0 per cent of the teachers of the advanced district schools as against around 18.0 per cent of the backward district schools feel that the supervision work has proved to be of greater significance in the planning and development of the instructional programmes of their schools. The percentages of the teachers of the advanced and the backward district schools who feel that the supervision work is not much beneficial are around 15 and 47 respectively. In this case also, it appears that the supervision work has contributed a good deal to the advanced district schools in comparison to the backward district schools.

Hence, the Hypothesis is sustained.

Table 4.9 (a) : Mean Rating by Teachers of Advanced and Backward District Schools of the Benefits accruing from Supervisory Services

Sr. No.	Sub-items of Item No. 1 (Tool IV)	Advanced District School Teachers	Backward District School Teachers
	<i>Benefits</i>		
1.	Insight in lesson planning	3.0	1.9
2.	Skills in effective technique of teaching	3.5	2.4
3.	Skills in solving class-room instructional problems	2.9	2.8
4.	Increased motivation of pupils in the class	2.8	2.3
5.	Acceleration of interaction of pupils	2.7	1.8
6.	Skill in planning project work	3.1	2.3
7.	Skill in planning Action Research	3.8	2.4
8.	Skill in maintenance of class discipline	3.0	2.4
9.	Skill in constructing evaluation items	3.5	2.1
10.	Knowledge of the use of standardised tests	3.4	1.8
11.	Organizing effective practical work for pupils	2.8	2.1
12.	Ability to encourage pupils to take	3.5	1.8

Table 4.9 (b) : Mean Rating of Teachers of Advanced and Backward District Schools of the Benefits accruing from Supervisory Services

Item No.	Items (2 to 10) Tool IV	Advanced District School Teachers	Backward District School Teachers
2	The extent to which the supervisory services of your school proved helpful to you	3.7	2.4
3	Your judgement as to whether your supervisor has the required potentiality to guide you for instructional improvement	3.8	2.3
4	The need for further enrichment of supervisory services	3.2	3.0
5	Your feeling about your supervisor regarding democratic means being used by him for educational improvement	2.8	2.1
6	Your own feeling whether you have become more competent due to services rendered by your supervisor	2.8	2.4
7	Your feeling whether your supervisor failed to give the service you needed	2.6	1.8
8	Your judgement about any equipment/ literature your supervisor had given to you which has proved beneficial to you	3.8	2.4
9	You would like to invite your supervisor to your class to observe your lesson	3.2	2.3
10	Your being acquainted with the aids and services, the supervisor can render to you	3.3	2.1

Table 4.10 (a) : Chi-square Value for the Extent of Agreement concerning Benefits derived from the present Supervision Work in Schools

(Figures in brackets indicate percentages)

Category	To a greater Extent	To Some Extent	To Less Extent	Total
Advanced Schools	266 (59.91)	112 (25.21)	66 (14.88)	444 (100.0)
Backward Schools	60 (28.17)	68 (31.93)	85 (39.90)	213 (100.0)
Total	326 (44.04)	180 (28.57)	151 (27.39)	657 (100.0)

$$X^2 = 71.29 \quad df = 2$$

$$X^2 \text{ at } .01 \text{ level of significance} = 9.210$$

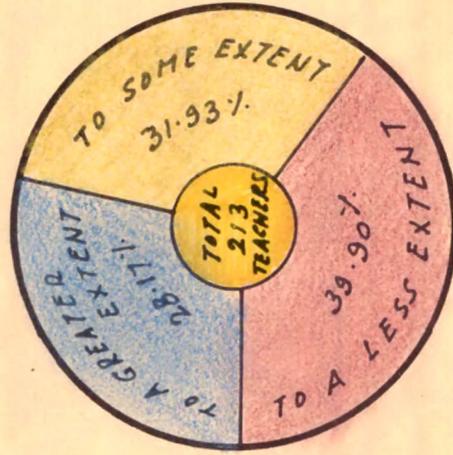
Table 4.10 (b) : Extent of Agreement regarding Perceptions of Teachers of the Overall Benefits derived from the Supervision Work

(Figures in brackets indicate percentages)

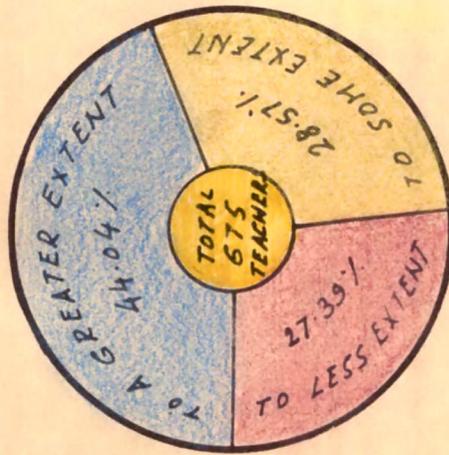
Category	To a greater Extent	To Some Extent	To Less Extent	Total
Advanced Schools	260 (58.56)	118 (26.58)	66 (14.86)	444 (100.0)
Backward Schools	40 (18.78)	72 (33.80)	101 (47.42)	213 (100.0)
Total	300 (38.67)	190 (30.19)	167 (31.14)	657 (100.0)

$$X^2 = 89.81 \quad df = 2$$

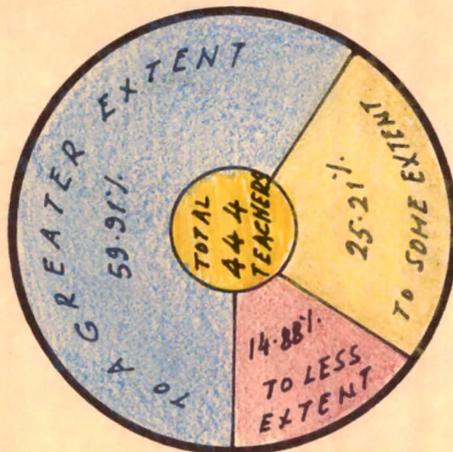
$$x^2 \text{ at } .01 \text{ level of significance} = 9.210$$



PANCHMAHALS DISTRICT.



TWO SAMPLED DISTRS.



KHEDA DISTRICT

BENEFITS OF SCHOOL SUPERVISION IN SECONDARY SCHOOLS

4.6 NEWER PROGRAMMES OF SUPERVISION WORK (Hypothesis IV)

The wordings of the fourth Hypothesis are as under :

"The schools of an advanced district would have newer programmes of school supervision in comparison to the schools of a backward district."

In collecting data to test this Hypothesis, the Tool VI given in the Appendix I was used.

An inspection of the percentages shows that the advanced as well as backward district schools show a markedly low percentage on Item Nos. 2, 4, and 6.

Item No. 2 pertains to the innovation programme of Action Research. The adoption of this programme appears to be low both in the schools of advanced and backward districts. Several reasons can be attributed to this. Firstly, the programme involves a technique which is new. Secondly, a large majority of secondary school teachers do not know how to plan and implement Action Research which has as its major focus the solution of felt problems of teachers by themselves only. Thirdly, a good deal of confusion prevails - this programme is equated with research and most of the teachers feel that research is not their meat. Fourthly, no systematic practical training is being given by secondary teachers' colleges to their trainees in planning and implementing Action Research Programmes.

Fifthly, teachers are not motivated much. Sixthly, the supervisor could not stimulate them much. There is, as such,

a dearth of the talented persons in the teaching community. The teaching profession still continues to be ^alowly paid one and the talented persons prefer to enter industries, business and those who prefer academic pursuits enter university or college teaching which offer them comparatively better salaries and job satisfaction. And lastly, the lack of well equipped school library, commercial minded private management, profit making school environment particularly in the advanced district of Kheda and the traditional conservative set-up in the backward district of Panchmahals where people, at large, perceive such things as a hoax. Such innovative programmes are less implemented in both the categories of districts. Still however, thanks to the Departments of Extension Services of the Teachers' Training Colleges at Baroda and Vallabh Vidyanagar, increasing number of teachers are being oriented in innovative programmes. High schools of an educationally advanced district shall be ready to come out from the traditional set-up and will be ready to accept the important new ideas, adopt innovative programmes of development, and will strive to be in fore-front in instructional advancement. This generally does not happen in the schools of an educationally backward district. A backward or a non-advancing school, by its nature, is reluctant and is hesitating in accepting ^{new ideas and adopting innovations.} The traditional environment breeds in people such nature and attitude, and it becomes difficult for them to come out from conservative cells. On the contrary,

the enthusiastic one faces difficulties boldly; and overcomes them to a varying extent. But the conservative is over-cautious, sees pit-falls and dangers in taking new steps, while undertaking any unconventional or new activity in the school, he begins with grumbling and puts forward excuses, and ultimately starts talking about the worthlessness and futility of such innovations. As a result of this, one sees a marked difference between an advanced and a backward school as far as the extent and the quality of implementation of such programmes are concerned. The supervisor finds himself here ineffective in leading other members of the staff along the path of innovations.

Tool ~~IV~~ was developed to survey the innovative instructional practices followed by the secondary schools. The respondents of the tool are the sampled high school teachers of the Kheda and the Panchmahals Districts. The results for ~~444~~ teachers of the advanced district (Kheda) schools and ~~41~~ 213 teachers of backward district (Panchmahals) schools were treated in two ways. Table 4.11 shows the percentage of the schools implementing the innovative programmes in each district category. A chi-square test of significance was given to the actual number of schools of both the advanced and backward groups implementing as well as non-implementing the programmes. A school was deemed to be implementing an innovative programme when its teacher-respondents indicate that seven or more innovative practices are adopted by their school. When these

figures fall below 7, it is considered that the school is not implementing the innovative programmes.

Tables showing item-wise percentage agreement for the new programmes of supervision and chi-square value for the existence of the new innovative programmes in advanced and backward district schools are given in table 4.11.

Table 4.11 : Item-wise Percentage Agreement for the New Programmes of Supervision

Item Sr.No.	Items of Tool VI	Advanced District Schools	Backward District Schools
1	Project work	62.90	35.45
2	Action Research	12.05	6.30
3	Use of objective tests in school examinations	85.00	84.00
4	Internal assessment of more than 20 per cent	13.20	1.60
5	Cumulative Record Cards	60.00	40.90
6	Work experiences	15.15	3.05
7	Unit Plans of Teaching	39.40	14.90
8	(a) Social Services Activity	30.15	14.20
	(b) Labour Camps		
9	Participation in the District Science Fair	67.80	38.40
10	Participation in the District level Sports Contests	89.60	75.20
11	Participation in Drama, Dance, Folk Dance Contests, etc.	75.20	19.95

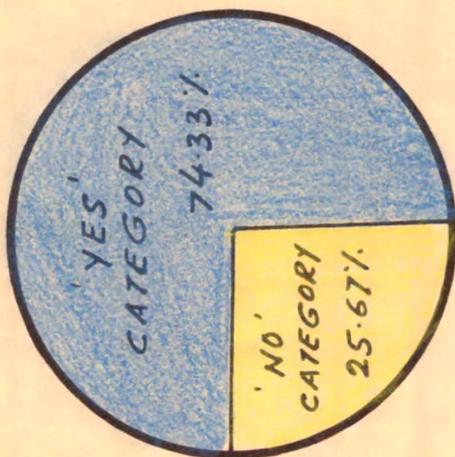
Table 4.12 : Chi-square Value for the Adoption of New Innovative Programmes in Advanced and Backward District Schools

(Figures in brackets indicate percentages)

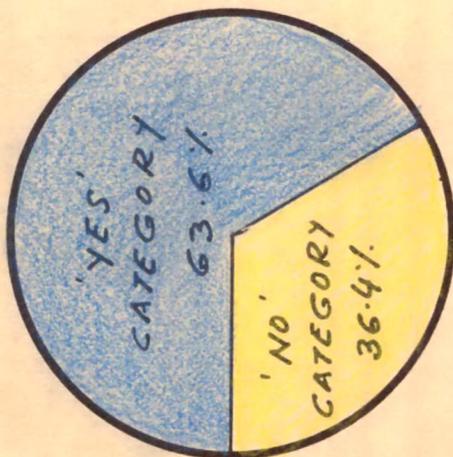
Category	R e s p o n s e		Total
	Yes	No	
Advanced District Schools	110 (74.33)	38 (25.67)	148 (100.0)
Backward District Schools	38 (53.10)	33 (46.90)	71 (100.0)
Total	148 (63.6)	71 (36.4)	219 (100.0)

df=1 $\chi^2=9.29$ χ^2 at .01 level of significant = 6.635

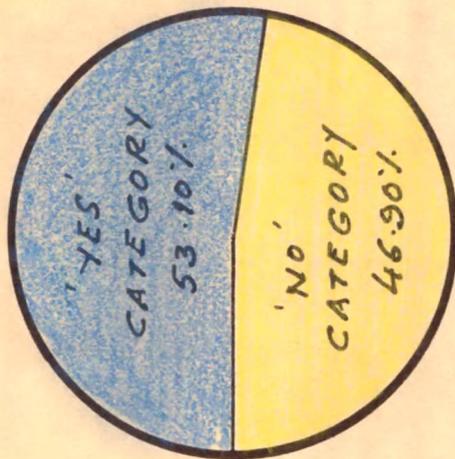
Item No. 4 deals with internal assessment of more than 20 per cent. On this item also both these groups score very low. It seems that the directive of the State Education Department which enjoins a school to introduce internal evaluation to the extent of 20 per cent seems to be responsible for schools not moving beyond giving a weightage of 20 per cent to internal assessment in the annual examination results. Schools ^{under} ~~in~~ a bureaucratic administration look to the departmental officers for taking advance steps in instructional practices. They would tend to adopt such innovative instructional practices as are recommended and advocated by the school inspecting officers. The inspectors of Gujarat have not perceptibly pushed the reform of internal assessment in schools' final examination.



KHEDA DISTRICT



SAMPLED TWO DISTRICTS



PANCHMAHALS DISTRICT

INNOVATIVE INSTRUCTIONAL PROGRAMMES IN
SECONDARY SCHOOLS

CHART - 14

Item 6 refers to work experiences. As this requires linkage of schools with some industry or business and also more school funds, backward district schools do not have much scope to adopt this innovation. In an advanced district, the lack of interest on the part of the community of industrialists as well as absence of keenness on the part of the school authorities is responsible for the low score on this item. It is all the more in a backward district.

Contrary to the above, the advanced as well as backward schools score very high on sports activity. The score on Item No. 4 shows this. The reasons are self-evident.

In advanced district, people realise its value more while in backward district schools sport becomes a luxury of the well-to-do among the pupils. Students find it ^a better _^ compensation for backwardness in studies. Taking the overall view, the advanced district schools score comparatively higher percentages as compared to the backward district schools in the other items.

Taking the overall picture, the chi-square values of significance shows the marked difference between advanced district schools and backward district schools. The chi-square value is 9.29 which is higher at .01 level of significance. It rejects the null hypothesis at .01 level. Hence, it can be said that the advanced district schools would have newer programmes of supervision in comparison to the schools of the backward district.

4.7 SUPERVISORS, SUPERVISION TOOLS AND METHODS (Hypothesis V)

The study under this section moves to supervisors, supervision tools and methods. The Hypothesis regarding this is as under :

"The advanced district schools are expected to differ from the less advanced schools in respect of persons doing supervision work, maintenance of Log Book and keeping the teachers informed about various supervision-related activities and the use of new instructional methods."

There are three parts in this Hypothesis, viz., (1) Supervisors, (2) Supervision Tools, and (3) Supervision Methods.

The data for this Hypothesis were collected by administering Tool No. 6 to the supervisors of the sampled schools.

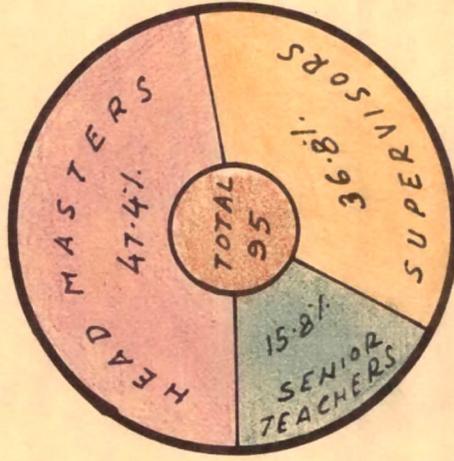
This Hypothesis was formulated to inquire into the supervision related activities in details. Item No. 2 in the tool VI pertains to those who do supervision work in the schools as well as the tools used by them. Item No. 3 in the tool pertains to the methods of supervision used by the supervisors. Item Nos. 2.2 to 2.4 and 3.1 to 3.14 are in the form of dichotomous nature. This tool was administered to a group of teachers one from every sampled schools. They were asked either to tick (✓) mark or put a cross (X) mark on item. The total number of 'yes' frequencies and 'no' frequencies were calculated. The results are given in Tables 4.13 to 4.16.

Table 4.13 : Percentage Distribution of Persons doing Supervision Work
(Figures in brackets indicate percentages)

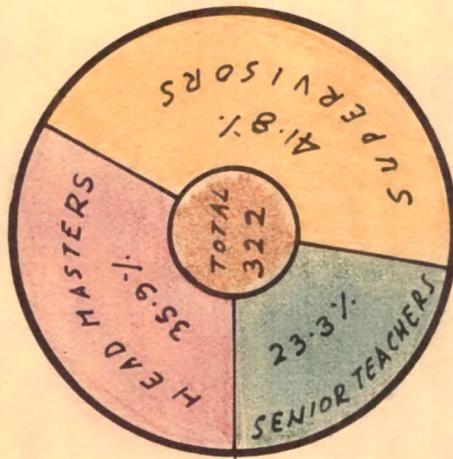
Category	Head- masters	Super- visor	Senior Teacher	Total
Advanced District Schools	55 (24.4)	105 (46.7)	65 (28.9)	225 (100.0)
Backward District Schools	45 (47.4)	35 (36.8)	15 (15.8)	95 (100.0)
Total	100 (35.9)	140 (41.8)	80 (22.3)	320 (100.0)

Table 4.14 : Percentage Distribution of 'Yes' Answers Denoting Certain Essentials of Supervision Work

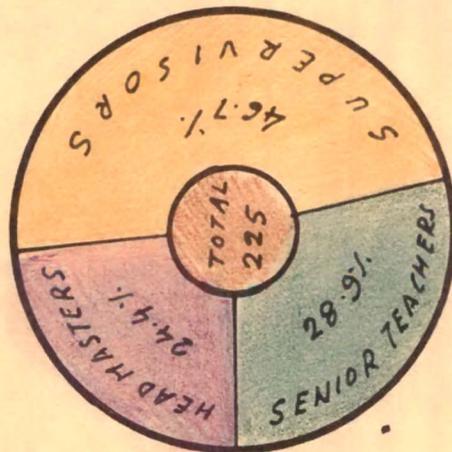
Sr. No.	Sub-items of Item No. 2 Tool VI	Advanced District Schools	Backward District Schools
2.2 (a)	Is the log book of class super- vision maintained ?	30.00	75.00
(b)	If 'yes', are the supervision remarks brought to the notice of the teacher concerned ?	85.80	70.60
(c)	Is it insisted that teachers should strictly follow the suggestions ?	52.00	24.90
(d)	Is further guidance and assistance offered to teachers to implement the suggestions ?	48.00	22.40
2.3	Does any member of the Managing Committee supervise the teaching work?	1.20	4.90
2.4	Is there any internal committee of teachers to do supervision work ?	35.30	17.40



PANCHMAHALS DISTRICT



TWD SAMPLED DISTRICTS



KHEDA DISTRICT

SUPERVISORS IN SECONDARY SCHOOLS

CHART-15

Table 4.15 : Chi-square value for the Extent of Agreement among Advanced and Backward District Schools concerning the Essentials of Supervision Work (Figures in brackets indicate percentages)

Teachers of Schools	'yes' Category	'no' Category	Total
Advanced	60 (40.54)	88 (59.46)	148 (100.0)
Backward	13 (18.31)	58 (81.69)	71 (100.0)
Total	73 (29.43)	146 (70.57)	219 (100.0)

df = 1 $\chi^2 = 15.09$
 χ^2 at .01 level of significance = 6.635

Table 4.16 : Item-wise Percentage Agreement among Teachers of Advanced and Backward Schools concerning the use of Methods of Supervision

Item Sr. No.	Sub-items of Item No. 3 (Tool VI)	Teachers of	
		Adv. Dist. Schools	Back-Dist. Schls.
1.	Observation and Evaluation of Teaching work through class visitation	58.50	15.30
2.	Insistence on teachers to do professional reading	65.00	35.50
3.	Role playing	15.40	5.30
4.	Simulation	15.20	1.20
5.	Formation of Subject Committees	65.50	35.40
6.	Sharing of one another's class-room teaching experience	49.40	28.30
7.	Consultation -Discussion and Guidance before teaching	45.30	23.80
8.	Discussion in staff meetings	45.40	25.30

A chi-square value of 15.09 is significant showing that the group differences are significant. The percentages of 'yes' frequencies are 40.5 and 18.3 respectively from the advanced and the backward district schools.

An inspection of the percentage scores in Table 4.14 shows that the advanced district schools have a higher score than the backward district schools. This also would mean that the advanced district schools are having a good degree of regularity in maintaining various supervision tools.

Item No. 2 of the tool was constructed with a view to inquiring into a status of school supervisors. Results are reported in the Table 4.13. Scrutiny of the item shows the following. In the advanced district schools, most of the supervision work is done by a supervisor. The second and third ranks are for the senior teacher and the headmaster respectively. On the contrary, in the backward district schools supervision is done mostly by the headmaster, less frequently by a supervisor, and least frequently by a senior teacher. From this, one can say that as far as these results show, there seems to be centralization of powers in headmasters in the case of backward district schools, whereas the power is decentralized in the case of the advanced district schools. Decentralization of supervision authority is a clear sign of advancement of a school.

So, the chi-square test (Vide - Table 4.15) as well as the percentage table scores (Vide - Table 4.16) show that the advanced district schools are on a superior level than the backward district schools as far as the details of supervision related activities are concerned.

Thus the Hypothesis is sustained.

4.8 QUALITY OF SUPERVISION WORK IN SCHOOLS

(Hypothesis VI)

After having examined in some significant details as to who does the supervision work in high schools, what are the tools and procedures employed by the supervisors and what are the methods or approaches adopted by them, a natural question that would emerge is : what is the quality of these supervisory services offered to the teachers. This question is taken up for examination in Hypothesis VI. The Hypothesis is formulated as under :

"The quality of present supervision work is expected to be far more superior in the case of advanced schools than in the case of backward schools."

Phenomena of habit formation is a very important one in any set up as it may prove to be an asset or an obstacle as well. Replacing old habits by new ones or formation of entirely new habits, always takes time and during this period, frequent observation of various supervision-related activities

becomes a 'must'. Hence, the quality of supervision work depends largely upon how frequent the supervisory activities are carried out by the supervisors. An inquiry was set up to study the group differences regarding the frequency of supervision activities. In this study, use was made of Items 4.1 to 4.10 in Tool VI given in the Appendix I. The tool was administered to a group of teachers. The Mean ratings were calculated on every item. The resulting scores are shown in the table that follows.

Table 4.17 : Itemwise Mean Rating denoting Extent to which Supervision-related Activities are Carried out

Item Sr.No.	Sub-Items of Item No. 4 (Tool VI)	Adv. Dist. Schls.	Back. Dist. Schls.
1	Observation of class teaching through class visitation	3.2	1.8
2	Individual Conferences with Teachers and guidance	2.6	1.3
3	Discussion of the Instructional Work and its improvement in group committees of teachers	2.8	1.4
4	Discussion of academic issues and problems in staff meetings	2.5	1.9
5	Reading and discussion of modern books, articles and research work	1.7	0.6
6	Pre-planned talk by experts	1.8	1.1
7	Conducting workshops/seminars for teachers to meet their needs	2.8	1.4
8	Participation of teachers in academic decision making	2.6	1.3
9	Demonstration of modern trends and new techniques	2.9	1.6
10.	Screening of educational films for teachers	2.7	0.8

The observation of the entries in the table shows that not a single item in the case of the advanced district schools receive a score ~~around two~~ excepting on items No. 5 and 6, whereas not a single item, in the case of the backward district schools receive a score of ~~around~~ one excepting on items No. 1, 4, and 9, i.e. only 2 items out of 10, in the case of advanced district schools receives a score of less than ^{two} 2 and only 3 items out of 10 in the case of the backward district schools receive score more than ^{around} the rest of the one score. For ~~the rest of the~~ items, that is for 8 out of 10 items, the mean scores in the advanced district schools and the backward district schools are respectively ^{around} 3 and 1, showing a clear gap between the two groups of schools as far as the frequency of supervision related activities is concerned. The score of ¹ means that various supervision activities are seldom practised. Thus, a score ^{around} 3 on most of the items in the case of the advanced district schools indicates that supervisory activities are constantly resorted to and this, as stated at the outset of discussion, is a pointer to the quality of supervision. The scale is in favour of the advanced district schools (Kheda).

Hence, the Hypothesis is sustained.

4.9 ACHIEVEMENTS OF SUPERVISORY SERVICES

(Hypothesis VII)

In the previous Hypothesis, the quality of supervision work being done in the secondary schools of the two districts under study was examined in relation to the frequencies of the supervision services occurred in the schools. That was only one measure of the quality of the supervision work. Another, and perhaps, a stronger evidence of the quality of supervision work will emerge from the analysis and discussion of the present Hypothesis. It reads as under :

"The advanced district schools would have many more achievements due to supervision work than the backward district schools."

It is the job of a supervisor to create permissive and inducive environment, build up creative educational framework, raise the morale of the teachers and the taught, promote democratic functioning in the school, motivate employees to take initiative and be fearless, and ultimately through co-operational activities to lead teachers and ^{the} taught on the path of the adoption of innovative educational tools and methods. Thus, the function of a school supervisor is to gear up the process of acquiring and imparting education, which is considered to be of no little importance in a school. A supervisor's efficiency and leadership qualities can best be judged by the extent to which he is successful in toning up the educational process through healthy supervision.

If he is able to do this, it will be deemed his major accomplishment, and it would speak eloquently of the quality of instruction.

The Hypothesis VII was tested with the help of Tool VI, Item No. 5. It consists of 25 sub-items. It measures achievements of supervision on a four-point rating scale. The tool was administered to groups of teachers from both the districts under study. Overall differences between the district groups were studied by the use of 't' test. Mean scores were used to compare the two district groups on individual items. The results are shown in Table 4.19 given on the next page.

Table 4.18 : Computation of 't' Value for the Significance of Difference between Means denoting Achievement of Supervision

Category	N	Mean	S.D.	S.E. _D	't' Value
Advanced District Schools	148	57	7.7	0.97	12.3
Backward District Schools	71	45	6.3		

df = 217

't' Value significant at 0.01 level = 2.60

Table 4.19 : Item-wise Mean Rating for the Achievement of Supervision

Sr. No.	Sub-items of Item No. 5 (Tool VI)	Advanced District Schools	Backward District Schools
1	2	3	4
1.	Release of teacher creativity	2.3	1.0
2.	Development of teacher initiative	2.4	0.8
3.	Enthusiasm created in teachers for good teaching	2.6	1.8
4.	Creating interest in teachers to read educational literature	2.7	1.1
5.	Creating attitude among teachers to solve their instructional difficulties through consultation with colleagues	2.6	1.4
6.	Creating good teaching-learning climate in school	2.5	1.6
7.	Organization of regular staff meetings	2.3	1.1
8.	Planning of teaching by the group committees of teachers	2.4	1.3
9.	Teacher's participation in academic decision-making	2.5	1.2
10.	Increase in the professional reading by teachers	2.2	0.8
11.	Fearless academic expression of teachers	2.5	2.1
12.	Planned teaching work	2.8	1.2
13.	Climate for educational innovations in the school	2.0	1.4
14.	Creation of democratic environment in the school	2.2	1.4

(contd...)

Table 4.19 contd....

1	2	3	4
15.	Increase in achievement motivation of pupils	2.0	1.5
16.	Increase in student interaction during the learning process	2.6	1.4
17.	Healthy human relationship between the school and the local community	2.7	2.1
18.	Improved staff morale	2.6	1.8
19.	Healthy staff morale relationship between the school and the local community	2.7	1.7
20.	Improvement effect in school discipline	2.6	2.2
21.	High ranking of the school by district educational officer	2.2	1.4
22.	Improvement in staff stability	2.5	1.6
23.	Reduction in the extent of wastage in schools	2.3	1.4
24.	Reduction in the extent of stagnation in schools	2.2	1.3
25.	Improved morale and tone of the school	2.6	1.6

The 't' value of 12.3 is highly significant indicating that the differences observed between the supervisors of advanced and backward district schools are real and not due to chance factors as far as the achievements of supervision are concerned.

Total mean score of 57 in case of the advanced district school teachers as against that of 45 in the case of backward district school teachers clearly shows that the achievement of supervisors in schools of the advanced district (Kheda) is definitely more than the achievement of supervisors in the backward district (Panchmahals) schools,

An examination of the table of mean values clearly shows that ~~excepting item Nos. 11, 15, 17 and 20~~, not a single item is rated to the extent of less than 2 by advanced district school teachers whereas not a single item is rated to the extent of 2 or more ^{excepting items 11, 17, 20} by the backward district school teachers. This also clearly shows that the advanced schools are more benefitted than the backward district schools as far as the achievements of supervision are concerned.

Even on the Item Nos. 11, 17 and 20, the ratings of the advanced district school teachers are definitely more as compared to the ratings of the backward district school teachers. Here ⁽¹⁾ also, the difference is in favour of the advanced district schools. Item No. 15 only receives ⁽²⁾ ^{around two} score from both the district groups. This refers to motivation achievement in pupils. Hence, it can be judged that on the whole supervisors in both the district groups could motivate the pupils almost equally. Teachers of the advanced district schools have rated all items to the extent of about 3 and 2 indicating that the activities indicated in the items were always carried out or mostly carried out

in the schools which have rated all items to the extent of about 2 and 1, showing thereby that the activities were either mostly carried out or only occasionally carried out. This also shows that the achievements of supervision are definitely higher in the case of the advanced district schools as compared to those in the case of the backward district schools.

On every item ~~excepting Item No. 15~~, the rating by the advanced school teachers is higher than the ratings by the backward school teachers. This also shows that as far as the achievements due to supervision work in the advanced district schools is concerned, it definitely scores higher than the backward district schools. Thus, the Hypothesis VII is accepted.

4.10 IMPLEMENTATION OF NEW IDEAS OF SUPERVISION

(Hypothesis VIII)

After having examined the quality of supervision work being done in the secondary schools of the advanced district of ~~KER~~ (Kheda) and of the backward district of Panchmahals, it will be worthwhile to consider the implementation of new ideas regarding supervision in them. After all, schools and their practices have to change as new ideas and practices in education emerge. Modernisation and change is a much required process in schools, particularly in a traditional

society with an ~~control~~^{controlled} ideology of a ~~bureaucratic~~^{bureaucratic} set-up. In this study, supervision has been conceived as a mighty help to school faculty to be more effective ^{to} teachers and achieve, to a larger extent, the knowledge, social, economic, political, and cultural objectives so well set forth by the author of the Report of the Kothari Education Commission (1964-66) in Chapter I.

The Hypothesis VIII relates to the implementation of new ideas in school supervision. The Hypothesis is worded as under :

"It would be more possible to implement new ideas of supervision in advanced schools than in backward schools."

In the context of the design of the present research, this would mean that the high schools of the educationally advanced district of Kheda have more potentiality of implementation of new ideas in education than those of the backward district of Panchmahals.

This Hypothesis deals with the differences between advanced and backward district schools as regards the extent to which new ideas relating to school supervision could be implemented in their schools. Tool VII (Item Nos. 1 to 20) ~~is~~^{is} ~~are~~ used to measure this facet of school functioning. Schools were rated by their respective supervisors on a six-point scale. By adding up the frequencies in two successive points, the total scores were grouped in three categories. ~~Mean~~

Mean ratings on individual items were also calculated. A chi-square test of significance was used to study the overall differences between the schools of the two district groups.

Table 4.20 : Chi-square Value for the Implementation of New Concepts of Supervision
(Figures in brackets indicate percentages)

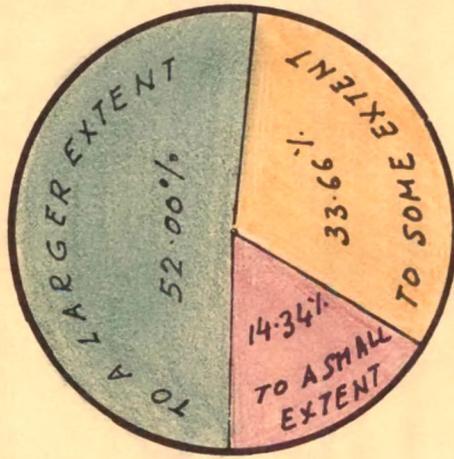
Category of School	I To a great Extent	II To some Extent	III To a small Extent	Total
Advanced District Schools	77 (52.00)	49 (33.66)	22 (14.34)	148 (100.00)
Backward District Schools	18 (25.35)	21 (29.57)	32 (45.08)	71 (100.00)
Total	95 (37.67)	70 (31.62)	54 (30.71)	219 (100.00)
df = 2			$\chi^2 = 24.71$	
		.01 level of significance	9.21	

Table 4.21 : Item-wise Mean Rating for the Implementation of New Ideas of Supervision

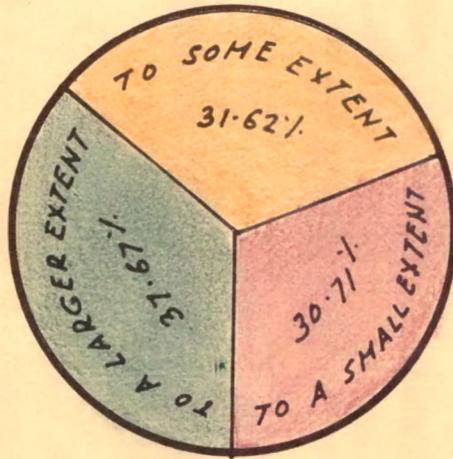
Sr. No.	Items - Tool 7	Advanced District Schools	Backward District Schools
1	Planned guidance to teachers	3.9	2.4
2	Assistance to teachers for their continued progress individually and collectively	3.7	2.6
3	Formation of such teaching learning situations that pupils can learn easily and effectively	4.7	2.8

Table 4.21 contd...

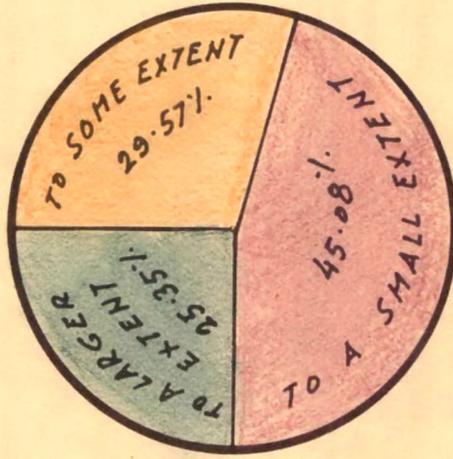
1	2	3	4
4	Achievement of professional development through inservice teacher education programme	3.9	2.5
5	Constituting teachers' committees to solve academic problems	4.2	2.4
6	Demonstration of modern techniques of teaching	3.8	2.0
7	Practical training of teachers in the use of audio visual aids	3.5	2.5
8	Use of audio visual aids in maximum possible number of subjects	3.6	2.5
9.	Objective centred instructional planning	3.1	2.4
10.	Subject teaching through Programmed Learning wherever possible	2.3	0.8
11.	Project work for every class	3.5	2.2
12.	Guidance to teachers in the preparation and use of assignments	3.0	1.6
13.	Free discipline in learning for pupils	3.3	2.2
14.	Introduction of the Cumulative Record Card in every school	3.5	2.3
15.	Regular meeting of teachers on instructional issues	3.6	2.4
16.	Regular paper reading by teachers	1.5	0.8
17.	Providing opportunities for the improvement of educational and professional qualifications	2.8	2.1
18.	Deputation of teachers for inservice training through Extension Department	2.9	2.4
19.	Monthwise planning for respective subjects/classes	4.0	3.9
20.	Class teaching through formation of pupils' groups	3.3	2.1



KHEDA DISTRICT



TOTAL SAMPLED SCHOOLS



PANCHMAHALS DISTRICTS

IMPLEMENTATION OF NEW IDEAS IN EDUCATION AND SUPERVISION

IN HIGH SCHOOLS

CHART-16

The chi-square value of 24.71 is definitely more than that of 9.21 which is significant at .01 level, proving that the difference is not due to accidental or chance factors. The examination of the entries in the chi-square table shows an upward trend in the case of the advanced district schools, in contrast to a downward trend in the case of the backward district schools. Here the differences observed become more visual and important. One can easily see that the possibility for the adaptation of the new concepts in education in general and supervision in particular in the case of the advanced district schools is definitely higher than that in the case of the backward district schools. About 52 per cent of the schools are rated in Category I, i.e. possibility in the case of these schools is to a very great extent, about 80 to 100 per cent. In the case of the backward district schools, the percentage of schools falling in this category is only 25. On the contrary, about 46 per cent of the backward district schools fall in the last category which shows that the possibility to adopt new ideas is very less, i.e. around 20 per cent only. The percentage of schools falling in the Category II showing the possibility to the extent of around sixty per cent for the advanced district schools and the backward schools are about 50 and 20 per cent respectively. Here, also the advanced district school group scores more as compared to the backward district school group indicating very clearly that the possibility for the adoption of new concepts is definitely more in case of the

advanced district schools as compared to that in the case of the backward district schools. In Category III which indicates the possibility of adoption of new ideas to a small extent only, the percentage for the advanced district schools is smaller than that of the backward district schools.

Same results are reflected in Table 4.21 of mean values also. An inspection of the table shows that in the case of the advanced schools, excepting Item Nos. 10 and 16, not a single item is rated to the extent of 2 or less, whereas in the case of the backward district schools, excepting Item Nos. 2, 3, 4, 5, 7, and 19, not a single item receives a score of 3 or more. This shows that the advanced district schools definitely score higher as regard to the ~~area~~ adaptability of new concepts.

Only one item (Item No. 19) in the case of the backward district schools receive a rating to the extent of 4 while in the case of the advanced district schools, the items which score 4 or more are Nos. 1, 2, 3, 4, 5, 6, 7, 8, 11, 14, 15, and 19. In all 12 items receive the score of 4 or more. This also shows higher rating in the case of the advanced district schools. The highest score in the case of the advanced district schools is around 5 (Item No. 3) as against the highest score 4 in the case of the backward district schools (Item No. 13). Once again this shows the superior position of the advanced schools in regard to the possibility of the adaptation of new concepts in education in general and school supervision in particular.

On the whole, one can say that there are differences and those too in favour of the advanced district schools in regard to the possibility for the adaptation of the new concepts in supervision.

Hence, the Hypothesis is upheld.

4.11 SCHOOL PROGRAMMES FOR EDUCATIONAL IMPROVEMENT (Hypothesis IX)

Implementation of new ideas in education would obviously result in newer activities for schools to bring about educational and instructional improvement. In fact, it is imperative that new ideas should lead to innovative activities which would lead a school or a school system to better instruction and better education. Improvement of educational activities would lead to better qualitative education which ultimately helps in realising national development objectives of education on which the National (the Kothari) Commission of Education (1964-66) built up the proposed educational structure, programming and standards established by continuously evolving evaluation criteria.

In this perspective, the Hypothesis IX is very significant. It is worded as under :

"The advanced district schools would differ markedly from the backward district schools in respect of the various activities to be undertaken for educational improvement."

The Hypothesis implies that there would be marked significant differences between the high schools of the advanced district and the backward district in regard to new educational activities undertaken by them to bring about improvement in instruction.

Tool VIII given in the Appendix is made use of in collecting the data to feed this Hypothesis.

Supervisors naturally like to have a programme of educational improvement by introducing various instructional activities. To what extent they felt this was possible in their own schools was the point of study in this Hypothesis. They were asked to rate their schools on a six-point scale in regard to twenty activities (Vide - Tool 8(a), Items 1 to 20). A high score on a rating scale would mean greater possibility of implementing an activity in the schools. Scores were grouped in 3 categories of greater, moderate, and less possibilities. Group differences were studied on a chi-square test. Results are tabulated in Table 4.22.

Table 4.22 : Chi-square Value for the possibility of the Implementation of Supervision related Activities in Schools
(Figures in brackets indicate percentages)

Category of Schools	I To a great Extent	II To some Extent	III To a small Extent	Total
Advanced	60 (40.52)	52 (35.12)	36 (24.36)	148 (100.0)
Backward	14 (19.72)	27 (38.02)	30 (42.26)	71 (100.0)
Total	74 (30.12)	79 (36.57)	66 (33.31)	219 (100.0)

FACULTY OF EDUCATION AND PSYCHOLOGY

df = 2

$\chi^2 = 10.14$

Significant at .01 level

The chi-square value of 10.14 is significant at .01 level showing the differences observed to be virtued. This means that the two district school groups definitely differ as regards to the possibility of implementation of various improvement oriented educational activities.

The table entries show that in the advanced district schools about 40 per cent of the schools have greater possibility for the implementation of a programme of educational improvement, whereas in the backward district schools only 20 per cent of the schools have the similar possibility. This puts the schools in the advanced district schools group on a superior position to the schools in the backward district as far as the programme of educational implementation is concerned.

Schools falling under the third category from the advanced district and the backward district are 24 and 42 per cent respectively. This also shows that more number of schools from the backward district school group have difficulties in implementing newer activities of instructional improvement as compared to the schools in the advanced district. Regarding the second category, both the groups score almost equal, the difference between them being of 2.80 per cent which is more in favour of the backward district school group.

Taking the overall view, it can be inferred that the advanced district schools are definitely superior to the backward district schools as far as this part of the inquiry is concerned. The Hypothesis regarding the difference between the groups is, therefore, proved.

4.12 CONDITIONS IN SCHOOLS FAVOURABLE TO EDUCATIONAL IMPROVEMENT (Hypothesis X)

In the last section, the possibility of adopting new school programmes for instructional improvement ^{was} ~~were~~ examined in the Hypothesis IX. It was found that in this respect the schools in an educationally advanced district have better possibilities than those in the backward district. The present Hypothesis seeks to pursue this issue further. It attempts to examine the conditions which favour the adoption of newer programmes of instructional improvement in the context of an educationally ~~backward~~ advanced district and an educationally backward district.

The Hypothesis reads as under :

"There would be more favourable conditions for educational improvement in case of the advanced schools as compared to backward schools."

The data for this Hypothesis are fed by Tool VIII, Section B, Items 1 to 20. These items depict the conditions presumed to be favourable for educational improvement in secondary schools. This Tool was administered to the high

school supervisors. They were asked to rate their school on a five-point scale in regards to every item. The chi-square test of significance was used to study the differences between the advanced and the backward district schools. The results were computed individually for every item and are shown in Table 4.23.

Table 4.23 : (A to S) showing Item-wise Chi-square Values for the Existence of Favourable Conditions for Educational Improvement.

(Figures in brackets in all sub-tables indicate percentages).

A - Item 8 (b.1) : Open-minded Policy of School Management

School	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	70 (47.31)	60 (40.54)	10 (6.76)	8 (5.39)	0 (-)	148 (100.0)
Backward District Schools	22 (30.98)	20 (28.16)	21 (29.57)	3 (4.23)	5 (7.06)	71 (100.0)
Total Schools	92 (42.32)	80 (36.80)	31 (14.02)	11 (4.58)	5 (2.28)	219 219 (100.0)

df = 4

$X^2 = 30.85$

B - Item 8 (b.2) : School Policy to provide for qualitative Instruction

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	54 (36.50)	64 (43.21)	27 (18.25)	3 (2.04)	0 (0.00)	148 (100.0)
Backward District Schools	19 (26.75)	25 (35.20)	15 (21.12)	9 (12.71)	3 (4.22)	71 (100.0)
Total Schools	73 (33.33)	89 (38.31)	42 (19.12)	12 (7.87)	3 (1.37)	219 (100.0)

$$X^2 = 17.86$$

C - Item 8 (b.3) : Facilities for spacious school building

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	50 (33.80)	45 (30.42)	34 (22.98)	18 (12.12)	1 (0.68)	148 (100.0)
Backward District Schools	14 (19.71)	11 (15.49)	18 (25.34)	17 (23.94)	11 (15.52)	71 (100.0)
Total Schools	64 (28.84)	56 (25.76)	52 (23.82)	35 (16.10)	12 (5.48)	219 (100.0)

$$X^2 = 30.72$$

D - Item 8 (b.4) : Provision of Adequate and Modern Teaching Aids

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	68 (45.93)	27 (18.25)	32 (21.63)	21 (14.19)	0 (0.0)	148 (100.0)
Backward District Schools	18 (25.37)	16 (22.53)	20 (28.16)	12 (16.90)	5 (7.04)	71 (100.0)
Total Schools	86 (39.20)	43 (19.58)	52 (23.82)	33 (15.12)	5 (2.28)	219 (100.0)

$$X^2 = 14.11$$

E - Item 8 (b.5) : Allocation of enough fund for Educational Activities

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	53 (35.82)	33 (22.30)	33 (22.30)	26 (17.54)	3 (2.04)	148 (100.0)
Backward District Schools	16 (22.52)	16 (22.62)	15 (21.10)	15 (21.10)	9 (12.86)	71 (100.0)
Total Schools	69 (31.13)	49 (22.55)	48 (21.98)	41 (18.87)	12 (5.47)	219 (100.0)

$$X^2 = 13.39$$

F - Item 8 (b.6) : Democratic Traditions in the School

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	72 (48.66)	52 (35.15)	14 (9.43)	10 (6.76)	0 (0.0)	148 (100.0)
Backward District Schools	25 (35.24)	14 (19.71)	20 (28.16)	9 (12.67)	3 (4.22)	71 (100.0)
Total Schools	97 (43.69)	66 (30.36)	34 (15.57)	19 (9.02)	3 (1.36)	219 (100.0)

$$X^2 = 24.19$$

G - Item 8 (b.7) : Planned Programme for School Reforms

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	60 (40.55)	26 (17.54)	45 (30.42)	17 (11.49)	0 (0.0)	148 (100.0)
Backward District Schools	20 (28.16)	16 (22.53)	21 (29.57)	7 (9.87)	7 (9.87)	71 (100.0)
Total Schools	80 (35.36)	42 (20.04)	66 (30.34)	24 (11.04)	7 (3.20)	219 (100.0)

$$X^2 = 20.17$$

H - Item 8 (b.8) : Well-adjusted Harmonious School Staff

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	56 (37.85)	51 (34.07)	32 (21.63)	9 (6.45)	0 (0.0)	148 (100.0)
Backward District Schools	21 (29.60)	26 (36.61)	11 (15.49)	9 (12.67)	4 (5.63)	71 (100.0)
Total Schools	77 (30.31)	77 (30.31)	43 (19.35)	18 (8.21)	4 (1.82)	219 (100.0)

$$X^2 = 16.21$$

I - Item 8 (b.9) : Training the Staff of Teachers

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	85 (57.45)	43 (29.03)	19 (6.08)	11 (7.44)	0 (0.0)	148 (100.0)
Backward District Schools	30 (42.24)	23 (32.41)	14 (19.71)	2 (2.82)	2 (2.82)	71 (100.0)
Total Schools	115 (52.54)	66 (30.13)	23 (10.49)	13 (5.13)	2 (1.71)	219 (100.0)

$$X^2 = 16.21$$

J - Item 8 (b.10) : Young and Dynamic Staff of Teachers

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	64 (43.26)	56 (37.81)	20 (13.52)	8 (5.41)	0 (0.0)	148 (100.0)
Backward District Schools	38 (53.53)	15 (21.12)	16 (22.53)	0 (0.0)	2 (2.82)	71 (100.0)
Total Schools	102 (46.62)	71 (32.42)	36 (16.40)	8 (3.65)	2 (0.91)	219 (100.0)

$$X^2 = 14.02$$

K - Item 8 (b.11) : Parents' Keen Interest in Schools' Instructional Programme

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	10 (6.76)	23 (15.55)	25 (16.90)	56 (37.81)	34 (22.98)	148 (100.0)
Backward District Schools	14 (19.71)	14 (19.71)	13 (18.30)	7 (9.86)	23 (32.42)	71 (100.0)
Total Schools	24 (10.90)	37 (16.85)	38 (17.34)	63 (28.67)	57 (26.24)	219 (100.0)

$$X^2 = 21.77$$

L - Item 8 (b.12) : Well-organized ^{student Union} on Democratic Lines

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	13 (8.79)	25 (16.90)	23 (15.55)	57 (38.48)	30 (20.28)	148 (100.0)
Backward District Schools	9 (12.67)	14 (19.71)	25 (35.15)	17 (24.02)	6 (16.45)	71 (100.0)
Total Schools	22 (10.04)	39 (17.81)	48 (21.60)	74 (34.21)	36 (16.34)	219 (100.0)

$$\chi^2 = 16.91$$

M - Item 8 (b.13) : Stable Staff of Teachers

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	68 (45.96)	42 (28.35)	31 (20.95)	3 (2.04)	4 (2.70)	148 (100.0)
Backward District Schools	22 (30.98)	25 (35.23)	5 (7.04)	9 (12.67)	10 (14.08)	71 (100.0)
Total Schools	90 (41.10)	67 (30.59)	36 (16.44)	12 (5.48)	14 (6.39)	219 (100.0)

$$\chi^2 = 26.41$$

N - Item 8 (b.14) : High Morale of Teachers

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	67 (42.29)	55 (36.17)	25 (20.86)	1 (0.68)	0 (0.0)	148 (100.0)
Backward District Schools	23 (32.42)	30 (42.24)	5 (7.04)	8 (11.26)	5 (7.04)	71 (100.0)
Total Schools	90 (41.10)	85 (38.81)	30 (13.70)	9 (4.11)	5 (2.28)	219 (100.0)

$$X^2 = 25.79$$

O - Item 8 (b.15) : Healthy Traditions in the School

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	76 (50.32)	51 (34.47)	18 (12.17)	3 (2.04)	0 (0.0)	148 (100.0)
Backward District Schools	25 (35.23)	17 (23.94)	14 (19.71)	10 (14.08) (5x22)	5 (7.04)	71 (100.0)
Total Schools	101 (46.15)	68 (31.04)	32 (14.61)	13 (5.92)	5 (2.28)	219 (100.0)

$$X^2 = 27.39$$

P - Item 8 (b.16) : Democratic Traditions in the School

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	75 (49.55)	45 (31.52)	20 (13.52)	6 (4.06)	2 (1.35)	148 (100.0)
Backward District Schools	25 (35.23)	13 (18.30)	31 (43.65)	1 (1.41)	1 (1.41)	71 (100.0)
Total Schools	100 (45.67)	58 (26.48)	51 (23.29)	7 (3.19)	3 (1.37)	219 (100.0)

$$X^2 = 23.20$$

Q - Item 8 (b.17) : Modern and well-equipped Library under a Trained and Experienced Librarian

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	42 (28.39)	30 (20.28)	34 (24.35)	31 (19.55)	11 (7.43)	148 (100.0)
Backward District Schools	11 (15.52)	18 (25.34)	13 (18.30)	7 (9.86)	22 (30.98)	71 (100.0)
Total Schools	53 (24.89)	48 (21.75)	47 (21.33)	38 (17.18)	33 (14.85)	219 (100.0)

$$X^2 = 26.96$$

R - Item 8 (b.18) : Close relation of the School with the Extension Department of the Teachers' College of the concerned area

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	45 (31.45)	44 (29.54)	36 (24.23)	29 (13.42)	3 (1.36)	148 (100.0)
Backward District Schools	14 (17.71)	12 (16.90)	11 (15.49)	25 (35.23)	9 (12.67)	71 (100.0)
Total Schools	59 (27.71)	56 (25.35)	47 (21.18)	45 (20.28)	12 (5.48)	219 (100.0)

$$X^2 = 26.34$$

S - Item 8 (b.19) : Good Relations of the School with the District Education Officer

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	70 (47.31)	60 (40.55)	15 (10.10)	3 (2.04)	0 (0.0)	148 (100.0)
Backward District Schools	24 (33.83)	15 (21.12)	21 (29.57)	8 (11.26)	3 (4.22)	71 (100.0)
Total Schools	94 (43.16)	75 (34.24)	36 (16.22)	11 (5.02)	3 (1.36)	219 (100.0)

$$X^2 = 29.13$$

P.S. : For all the Tables 4.23 (A) to (S), the df = 4 and the chi-square value significant at .05 level is 9.458 and at .01 level is 13-217.

When the differences to the extent in which the conditions favourable for educational improvement prevailed in the schools were measured, it was found that both the groups differed markedly as the chi-square value of none of these items was found to be less than 13.217 which is significant at .01 level.

This shows that the differences between the two district school groups are really significant and they are observed in regard to every condition believed to be favourable for educational improvement. A close inspection of the table entries (i.e. percentages) shows that with regard to 11 items out of 19, the advanced district schools score more significantly than the backward district schools on three items. Out of the remaining eight items, the scores of the advanced district schools are less than those of the backward district schools. On the rest, the score of the advanced district schools is higher but to the extent of 10 per cent only and hence the difference was considered to be less significant. These eight items are 7, 8, 10, 11, 12, 13, 14 and 17. On item Nos. 11, 12 and 13, the scores of the backward district schools are comparatively higher than the advanced district schools. This refers to the interest of parents in schools programmes, organized pupil unions and stable staff. This might be due to the fact that in the backward district, the school units being small, there are more chances for informal contacts amongst the local

community people as well as the pupils. The school being the only local school is a matter of interest to everybody in the ~~xx~~ village or the town. One can see that they would feel more interested in the school activities as well as in the formation of the organized groups.

Regarding the relative stability of staff in the backward district schools, the informal atmosphere in the town as well as the school might be responsible. But this factor needs further probe.

The items on which the scores of the advanced district schools are not higher than the backward district schools by more than 10 per cent are mentioned below :

- 7 (Planned programme of educational improvement);
- 8 (Well-adjusted harmonious staff);
- 10 (Young and enthusiastic staff);
- 14 (Healthy traditions of the school); and
- 17 (Good library).

On all these items, the advanced district schools score almost on par with the backward district schools. Percentage being almost 75 and 50 with increasing proportion of the trained personnel in the field and greater awakening on the part of the supervisors, this is feasible.

On the whole, it is seen that the differences, as far as the favourable conditions of educational implications are concerned, in the two district school groups are real. Hence, the Hypothesis is sustained.

4.13 CONDITIONS NOT FAVOURABLE IN SCHOOLS
FOR EDUCATIONAL IMPROVEMENT (Hypothesis XI)

The present Hypothesis is the reverse of the foregoing one. In the last Hypothesis, just as the conditions favourable to educational improvement were studied, in the present Hypothesis, obstacles to educational improvement are examined. The tabulation of the data, analysis and interpretation are on the same lines.

The wordings of the present Hypothesis are as under :

"The advanced district schools, in contrast to the backward district schools, would be marked by the relative absence of some of the obstacles to the improvement of education."

The data fed into the examination of this Hypothesis are given in Table 4.24. The Tool used is No. 8(c).

Table 4.24 (A to S) : showing item-wise Chi-square for the obstacles to Educational Improvement.
(Figures in brackets indicate percentages)

A - 8(c.1) : High Work Load of Teachers

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	4 (2.70)	10 (6.90)	31 (20.93) (25.66)	38 (25.66)	65 (43.81)	148 (100.0)
Backward District Schools	8 (11.27)	8 (11.27)	21 (29.64)	11 (15.53)	23 (32.29)	71 (100.0)
Total Schools	12 (5.48)	18 (8.22)	52 (23.64)	49 (22.36)	88 (40.30)	219 (100.0)

$$X^2 = 10.33$$

Table 4.24

B - 8 (c.2) : Unstable and Changing Staff

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	30 (20.26)	61 (41.26)	36 (24.30)	13 (8.73)	8 (5.40)	148 (100.0)
Backward District Schools	15 (21.13)	18 (25.35)	14 (19.72)	16 (22.53)	8 (11.27)	71 (100.0)
Total Schools	45 (20.44)	79 (36.40)	50 (22.72)	29 (13.23)	16 (7.31)	219 (100.0)

$$X^2 = 12.58$$

C - 8 (c.3) : Conservative Managing Committee of the School

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	6 (4.06)	22 (14.86)	23 (15.58)	34 (22.96)	63 (42.54)	148 (100.0)
Backward District Schools	12 (16.90)	5 (7.04)	16 (22.53)	11 (15.49)	27 (38.04)	71 (100.0)
Total Schools	18 (8.10)	27 (12.15)	39 (17.55)	45 (20.25)	90 (41.95)	219 (100.0)

$$X^2 = 14.52$$

D - 8 (c.4) : Uncertain Financial Condition of the School

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	10 (6.90)	16 (10.80)	20 (13.51)	38 (35.66)	64 (43.13)	148 (100.0)
Backward District Schools	13 (18.31)	9 (12.68)	7 (9.86)	11 (15.49)	31 (43.66)	71 (100.0)
Total Schools	23 (11.07)	25 (11.35)	27 (12.15)	49 (22.05)	95 (43.38)	219 (100.0)

$$X^2 = 10.56$$

E - 8 (c.5) : Over Interference of the Guardians in the Teaching and other work in the School

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	2 (1.35)	5 (3.38)	20 (13.51)	31 (20.93)	90 (60.83)	148 (100.0)
Backward District Schools	9 (12.68)	5 (7.04)	7 (9.86)	5 (7.04)	45 (63.38)	71 (100.0)
Total Schools	11 (4.95)	10 (4.56)	27 (12.15)	36 (16.20)	135 (62.14)	219 (100.0)

$$X^2 = 18.53$$

F - 8 (c.6) : Large Number of Fresh and Unexperienced Teachers

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	1 (0.68)	2 (1.35)	20 (13.52)	44 (29.74)	81 (54.71)	148 (100.0)
Backward District Schools	3 (4.24)	4 (5.64)	3 (4.24)	11 (15.53)	50 (70.35)	71 (100.0)
Total Schools	4 (1.82)	6 (2.73)	23 (10.35)	55 (24.75)	131 (60.35)	219 (100.0)

$$\chi^2 = 17.86$$

G - 8 (c.7) : Inadequate Floor Space in the School

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	14 (9.89)	20 (13.51)	38 (25.66)	30 (20.41)	46 (30.53)	148 (100.0)
Backward District Schools	6 (8.45)	10 (14.08)	18 (25.35)	15 (20.25)	22 (31.73)	71 (100.0)
Total Schools	20 (9.13)	30 (13.69)	56 (25.20)	45 (20.25)	68 (31.73)	219 (100.0)

$$\chi^2 = 17.86$$

H - 8 (c.8) : Class Strength Exceeding 40-45

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	10 (6.75)	25 (16.89)	31 (20.93)	24 (16.26)	58 (39.17)	148 (100.0)
Backward District Schools	19 (36.72)	18 (25.35)	11 (15.53)	8 (11.27)	15 (21.13)	71 (100.0)
Total Schools	29 (13.05)	43 (19.35)	42 (18.90)	32 (14.40)	73 (34.30)	219 (100.0)

$$\chi^2 = 24.20$$

I - 8 (c.9) : Teachers Residing Out of Station

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	12 (8.11)	11 (7.43)	18 (12.15)	21 (14.18)	86 (58.13)	148 (100.0)
Backward District Schools	7 (9.86)	7 (9.86)	12 (16.90)	9 (12.68)	36 (50.70)	71 (100.0)
Total Schools	19 (8.55)	18 (8.10)	30 (13.50)	30 (13.50)	122 (56.35)	219 (100.0)

$$\chi^2 = 1.81$$

J - 8 (c.10) : Traditional Routine Programme of the School

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	0 (0.0)	15 (10.13)	35 (23.63)	38 (25.66)	60 (40.58)	148 (100.0)
Backward District Schools	3 (4.24)	12 (16.90)	25 (35.21)	14 (19.72)	17 (23.93)	71 (100.0)
Total Schools	3 (1.37)	27 (12.15)	60 (27.40)	52 (23.40)	77 (35.68)	219 (100.0)

$$X^2 = 12.21$$

K - 8 (c.11) : Commercial Attitude of the School Management

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	1 (0.68)	3 (2.03)	23 (15.53)	16 (10.68)	105 (71.08)	148 (100.0)
Backward District Schools	10 (14.08)	6 (8.45)	13 (18.31)	7 (9.65)	35 (49.51)	71 (100.0)
Total Schools	11 (5.02)	9 (4.11)	36 (16.20)	23 (10.35)	140 (64.32)	219 (100.0)

$$X^2 = 22.03$$

L - 8 (c.12) : Dictatorial Close-minded School Management

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	2 (1.35)	12 (8.11)	14 (9.46)	14 (9.46)	106 (71.62)	148 (100.0)
Backward District Schools	11 (15.49)	3 (4.23)	5 (7.05)	9 (12.67)	43 (60.56)	71 (100.0)
Total Schools	13 (5.85)	15 (6.75)	19 (8.55)	23 (10.35)	149 (69.50)	219 (100.0)

$$\chi^2 = 20.43$$

M - 8 (c.13) : Isolated School Location

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	4 (2.72)	5 (3.38)	31 (20.95)	16 (10.81)	92 (62.14)	148 (100.0)
Backward District Schools	5 (7.04)	9 (12.67)	7 (9.86)	11 (15.49)	39 (54.94)	71 (100.0)
Total Schools	9 (4.11)	14 (6.30)	38 (17.10)	27 (12.15)	131 (60.34)	219 (100.0)

$$\chi^2 = 10.99$$

N - 8 (c.14) : Conflict with the Office of the District
Education Officer

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	0 (0.0)	6 (4.08)	7 (4.73)	23 (15.54)	112 (75.65)	148 (100.0)
Backward District Schools	3 (4.23)	3 (4.23)	7 (9.86)	11 (15.49)	47 (66.19)	71 (100.0)
Total Schools	3 (1.35)	9 (4.05)	14 (6.30)	34 (15.30)	159 (73.00)	219 (100.0)

$$X^2 = 7.95$$

O - 8 (c.15) : Internal Bickerings among the Staff

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	1 (0.68)	5 (4.06)	13 (8.85)	20 (13.52)	109 (72.89)	148 (100.0)
Backward District Schools	5 (7.04)	5 (7.04)	3 (4.22)	18 (25.32)	40 (56.38)	71 (100.0)
Total Schools	6 (2.70)	10 (4.56)	16 (7.20)	38 (17.10)	149 (68.44)	219 (100.0)

$$X^2 = 16.90$$

P - 8 (c.16) : Political Overtone in School Activities

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	4 (2.70)	7 (4.73)	16 (10.81)	18 (12.17)	103 (69.59)	148 (100.0)
Backward District Schools	5 (7.04)	3 (4.24)	5 (7.04)	11 (15.48)	47 (66.20)	71 (100.0)
Total Schools	9 (4.05)	10 (4.56)	21 (9.45)	29 (13.05)	150 (68.89)	219 (100.0)

$$X^2 = 3.60$$

Q - 8 (c.17) : Inadequate Equipments of the School

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	5 (3.38)	9 (6.08)	34 (22.98)	38 (25.68)	62 (41.88)	128 148 (100.0)
Backward District Schools	9 (12.67)	9 (12.67)	18 (25.34)	14 (19.71)	21 (29.61)	71 (100.0)
Total Schools	14 (6.30)	18 (8.10)	52 (23.40)	52 (23.40)	83 (38.80)	219 (100.0)

$$X^2 = 10.07$$

R - 8 (c.18) : Conventional and Traditional Inspecting Authorities

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	3 (2.64)	18 (12.17)	28 (18.92)	45 (30.42)	54 (36.45)	148 (100.0)
Backward District Schools	4 (5.63)	11 (15.49)	15 (21.62)	14 (19.71)	27 (37.55)	71 (100.0)
Total Schools	7 (3.15)	29 (13.15)	43 (19.45)	59 (26.55)	81 (37.70)	219 (100.0)

$$\chi^2 = 5.75$$

S - 8 (c.19) : Depleted and Lethargic Staff

Schools	R a t i n g s					Total
	5	4	3	2	1	
Advanced District Schools	3 (2.04)	7 (4.76)	15 (10.14)	38 (25.68)	85 (57.38)	148 (100.0)
Backward District Schools	8 (11.26)	2 (2.81)	17 (23.94)	12 (16.90)	32 (45.09)	71 (100.0)
Total Schools	11 (4.95)	9 (4.05)	32 (14.40)	50 (22.50)	117 (54.10)	219 (100.0)

$$df = 4 \quad \chi^2 = 9.62$$

Chi-square value at .05 level = 9.458
at .01 level = 13.217

N.B.: (a) The $df = 4$. (b) Chi-square value significant at .05 level is 9.458 and at .01 level is 13.217.

The chi-square value of items 3,5,6,8,11,12 and 15 are significant at .01 level, items 1, 2, 4, 10,13,17 and 19 at .05 level of significance. All other items No. 9,14,16 and 18 are insignificant. This means that the differences regarding the presence of the obstacles are real and non-accidental. Items on which the chi-square value is insignificant refer to the number of staff members not staying at the head-quarter, amount of conflict with the Department of Education, level of political interference, conventional outlook of teachers, and the traditional mentality on the part of the officers in the Education Department. Considering that these are common elements affecting both the district school groups, the scores need to be insignificant.

Referring to entries in the chi-square table, it can be seen that the differences between the two groups are negligible in regard to Items Nos. 6, 7, 12, 13, 14, 15, and 16. These refer to more number of confined staff members, insufficient space in school building, unconsiderate autocratic management, location, conflict with the Department and members. On the whole, on all these items, the scores on the last two columns showing the lesser rating value are high in the case of both the school groups (almost 75.0 p.c. to 80.9 p.c.) indicating that as far as these obstacles are concerned, supervisors do not face many difficulties in the implementation of programmes for educational improvement.

On the remaining items, scores of the advanced district schools are higher than those of the backward district schools

75 giving an indication that they are equipped better and are facing less difficulties for implementation of programme for educational improvement.

Thus, the Hypothesis is sustained.

4.14 MOTIVATION OF TEACHERS TO BRING ABOUT INSTRUCTIONAL IMPROVEMENT (Hypothesis XII)

In this Hypothesis, an attempt will be made to examine the data and determine to what extent interest and motivation can be developed among the teachers of advanced schools and backward schools to achieve instructional improvement. The Hypothesis is worded as under :

"The teachers of advanced district schools would be more interested and more motivated in bringing about improvement in their schools."

The Tool used for data was No. 1.

Items No. 2 and 3 of the tool were used to study differences of teachers in the interest and motivation of teachers in bringing about the changes and innovations in school. Percentage scores on every item were calculated. The difference between scores of advanced and backward groups were compared. The results are tabulated in Table 4.25.

Table 4.25 : Percentage Distribution for the Interest and Motivation of Teachers

Sr. No.	Sub-items of Item 1 (Tool IX)	Advanced District Schools	Backward District Schools
1	Academically motivated	20.1	35.2
2	Disinterested in instructional Improvement	15.1	44.0
3	Opposing instructional improvement programme	20.1	52.8
4	Having a zest for instructional innovation	52.1	31.8
5	Progressive and healthy attitude	50.2	28.2

Scrutiny of the table shows the following :

Item No. 1 refers to the number of teachers lacking in motivation. Percentage scores of 20 and 35 show that a greater number of teachers are less motivated in backward district schools.

Item No. 2 refers to the number of teachers not interested in educational reforms. Percentage scores of 15 and 45 are in favour of advanced district school teachers.

Item No. 3 refers to the number of teachers who are reactionary to the changes. Percentages are around 20 and 53 respectively showing once again a favourable bias towards advanced district school teachers.

Item No. 4 refers to the number of enthusiastic teachers in the schools. Percentages are ^{around} 52 and 32 and are [^] in favour of advanced district school teachers.

The last Item No. 5 refers to the number of teachers with attitude, interest and achievement-orientation. The scores in this respect are 50 and 28 respectively showing a lesser favourable position of the backward district school teachers.

Taking an overall view, it can be said that so far as the factor that brings change and innovations in the secondary school set up among the staff in advanced district schools is more conducive to the acceptance of such changes than in case of the backward district schools, and thus, ultimately ^{it} [^] upholds the Hypothesis.

4.15 DIFFUSION OF EDUCATIONAL INNOVATIONS IN SECONDARY SCHOOLS (Hypothesis XIII)

In recent times in a developing country at least in the third World of Asian and African countries, schools have been called upon to take up challenging responsibilities in national development. They cannot continue to be traditional and conservative. Mere imparting of factual information to students cannot be their sole and primary goal. Schools are to be conceived as an agency of change and a preparation ground for future manpower of the country. This necessitates

that schools adopt new ideas in education, put into practice innovative instructional programmes that develop the school children to realise their potentialities in terms of creativity skills and competencies. The time taken by schools for diffusion of new ideas in their teachers and adopt innovations is an important issue. This is being studied in the Hypothesis XIII. It reads as under :

"Advanced district schools would differ markedly from less advanced district schools in respect of the procedures they adopt for popularising ○ new idea, time taken for innovation, and time taken for diffusion."

The Tool 9.2 is used to feed data for the Hypothesis.

One school will always differ from another in respect of the procedures employed to popularise educational innovations. The question of time taken for adoption of new ideas by teachers definitely matters to an educationist. Diffusion of new ideas in people at large as well as in pupils and teachers is also the function of a progressive school. In this regard also one school may differ from another.

To study these differences in adoption of new ideas and diffusion of innovations, ~~Tool 9~~ 9, particularly Items 2, 3 and 4 (with their respective sub-items) were administered to High Schoolx Supervisors. Scores were computed in the following way : (1) Percentage scores of positive response on Item Nos. ~~2.1~~ to ~~2.14~~ (2) Mean Scores on Item Nos. ~~3.1~~ to ~~3.5~~ and Item Nos. ~~4.1~~ to ~~4.4~~.

This was done to study the differences on individual items. For the overall comparison, the schools from both the district groups were divided into three categories : (1) Those that take less time, i.e. about 20 to 30 per cent of the total time; (2) those that take moderate time (i.e. from 30 to 60 p.c. of the total time; and (3) those that take greater time i.e. from 60 to 100 per cent of the total available time.

The chi-square test was then applied to study significance of difference. The results are given in Table 4.26.

Table 4.26 : (a) Percentage Distribution for the Procedures adopted for Popularising New Ideas of Supervision

Sr. No.	Sub-items of Item (Tool IX)	Advanced District Schools	Backward District Schools
1.	An informal talk to teachers about it	65.6	35.6
2.	By offering to the teachers related literature about the new trend	60.0	36.8
3.	Giving a systematic and well illustrated talk about it	45.2	28.3
4.	Arranging a talk by outside experts	36.1	18.1
5.	By searching assistance from the Extension Department of a Teachers' College	37.5	19.8
6.	Persuading the School Management to encourage teachers to adopt it	28.1	13.1
7.	To pass a resolution in the Staff Meeting favouring its adoption	32.3	21.2
8.	Securing Principals' directive about it	17.8	15.6
9.	Demonstrating it to teachers by the supervisor himself or by others	55.5	32.9
10.	Discussing and convincing teachers individually	65.4	28.4

(contd....)

Table 4.26 contd....

1	2	3	4
11.	Securing assistance from the Management for the above purposes.	49.4	40.3
12.	Securing assistance from the District Education Officer	41.2	20.5
13.	Spreading related ideas and convincing teachers about the practicability of the innovation among teachers through local teachers' association	15.5	8.6
14.	Organizing seminars/workshops about it.	15.5	7.6

Table 4.26 : (b) Time ^{taken} in Weeks for Educational Innovations

Sr. No.	Sub-items of Item 3 (Tool IX)	Advanced District Schools	Backward District Schools
1.	Creating awareness in teachers	1.5	4.5
2.	Creating interest in teachers	2.0	4.1
3.	Evaluating interest in teachers	3.0	6.0
4.	Mental acceptance by teachers	4.0	8.0
5.	Adoption by teachers	6.0	12.0

Table 4.26 : (c) Time taken for the Acceptance of Innovation

Schools	0-4 Weeks	5-8 Wks.	9-12 Wks.	Total
Advanced District	71 (48.09)	40 (27.04)	37 (24.87)	148 (100.0)
Backward District	20 (28.16)	21 (29.57)	30 (42.27)	71 (100.0)
Total	91 (38.13)	61 (28.31)	67 (33.56)	219 (100.0)

Table 4.26 : (d) Time taken in Weeks for Diffusion of Innovation

Sr. No.	Sub-items of Item 4 (Tool IX)	Advanced District Schools	Backward District Schools
1.	Receiving the idea	2.1	4.1
2.	Experimenting the idea	3.2	4.4
3.	Adopting the idea	4.8	5.9
4.	Diffusing the idea	5.1	8.4

Table 4.26 : (e) Time taken for Diffusion of Innovation

District Schools	0-3 Weeks	4-6 Weeks	7-9 Weeks	Total
Advanced	65 (43.89)	43 (29.07)	40 (27.04)	148 (100.0)
Backward	15 (21.12)	18 (25.27)	38 (53.61)	71 (100.0)
Total	80 (32.50)	61 (27.17)	78 (40.33)	219 (100.0)

df = 2

$$\chi^2 = 17.19$$

The chi-square values of 8.87^(.05) and 17.19^(.01) respectively in regard to the time taken for adaptation and diffusion of educational innovations indicate that both the district school groups differ markedly.

The scrutiny of the tables shows that the percentages of schools falling in category I in regard to both aspects are about 48 and 43 respectively for advanced district school group in contrast to 28 and 21 respectively for the backward

district school group. This indicates that the advanced district schools in general take less time in accepting as well as diffusing an innovative idea. The percentages of schools falling in the last category are around 25 and 27 respectively in the case of the advanced group in contrast to 42 and 53 per cents respectively in the backward district school group. This shows that, on the whole, lesser number of schools from the advanced district schools group requires more time in contrast to a greater number of schools from the backward district school group.

This would mean that as far as the acceptance and diffusion of an innovation are concerned, the advanced district school group scores fairly higher than the backward district school group.

Looking to the table 4.26 of percentage for Items Nos. 2.1 to 2.14, it is found that the advanced group in general scores more as compared to the backward district school group on every item pointing out very clearly that more number of schools from the advanced district school group are employing various procedures to popularise an educational innovation as compared to the backward district school group.

Taking an over-all view regarding the efforts to popularise and time taken for acceptance and diffusion of innovative instructional practices, the scores of the advanced district schools are fairly higher than those of the backward district schools. Thus, the Hypothesis is sustained.

4.16 LEADERSHIP IN SECONDARY SCHOOLS (Hypothesis XIV)

Leadership in an organization moves it to the achievement of its goals. It stimulates, activates and moves the members towards the fulfilment of the aims and ideals of the organization. This happens in all kinds of organizations whether in the field of public administration or industry, or business or in education. A leader plays a very crucial role in the success or otherwise of an organization or institution. This has been dealt with at length in Chapter I.

School supervision is also a leadership behaviour and function. In order that school supervision turns out to be fruitful and effective, the leadership as represented by the supervisor (the principal, the vice-principal, and the specially designated person as 'supervisor' should be well informed, skillful and competent.

The last hypothesis in the present investigation is, therefore, directed to the study of the leadership in the high schools of the two sampled districts. It is worded as under :

"The advanced district schools, in comparison to the backward district schools, will have an able leadership."

The Hypothesis is based on the data yielded by the administration of ~~the~~ Tool No. 10 and 11.

This Hypothesis was formulated to study the differences in the leadership pattern of the high school supervisors.

Two aspects of leadership were taken into account, viz., (1) general leadership, and (2) educational leadership.

To study the general leadership, Tool No. X consisting of 40 items was used. These items depict a person-oriented trait, a job-oriented trait or a neutral trait (which was neither job-oriented nor a person-oriented). Both the positive as well as negative traits were taken into account and a six-point rating was used for the qualitative assessment. While scoring, the direction of the trait was taken into account and the scores on all the negative items were replaced by their respective positive equivalents. The scores were classified according to the two characteristics of P.O. and J.O. * Neutral traits were treated separately, leadership was grouped into four categories, viz., HH, HL, LH, and LL. The HH column includes supervisors scoring high on both the traits : person-oriented as well as job-oriented. The HL includes supervisors scoring high on person-oriented trait and low on job-oriented trait. The LH category included those who scored low on person-oriented and high on job-oriented. The LL category included those supervisors scoring low on both the traits. The advanced and backward groups were then compared in terms of all these categories. The chi-square test of significance was given to test the Hypothesis.

To measure the educational leadership, Tool No. XI was used. Five aspects were considered. They are (1) knowledge of subjects, (2) knowledge of reforms affected on curriculum

* P.O. = Person oriented, J.O. = Job oriented

and methods of teaching, (3) skills and abilities, (4) special training in leadership, supervision of innovation and change, and (5) attitudes and habits. In all 40 items were used to study these five aspects on a six-point rating scale. The scores regarding each aspect were grouped in three categories. The chi-square test of significance was used to study the group differences. The results are shown in the following tables.

Table 4.27 (a) : Distribution of Advanced and Backward Schools according to patterns of Leadership based on Person-orientation and job-orientation.

(Figures in brackets indicate percentages)

Schools	HH	LH	HL	LL	Total
Advanced District Schools	37 (25.19)	59 (39.65)	30 (20.28)	22 (14.88)	148 (100.0)
Backward District Schools	15 (21.13)	22 (30.52)	18 (25.35)	16 (23.00)	71 (100.0)
Total	52 (23.16)	81 (35.08)	48 (22.81)	38 (18.95)	219 (100.0)

$$df = 3$$

$$\chi^2 = 3.70$$

$$\chi^2 \text{ at } .05 = 7.615$$

$$\text{at } .01 = 11.345 \text{ not significant}$$

Table 4.27 (b) : Itemwise Mean Rating for Person-oriented Leadership Structure

Sr. No.	Item No.	Items (Tool No. X)	Advanced District Schools	Backward District Schools
1.	1	He is cheerful both in performing his duties and assigning work to others.	4.1	3.0
2.	2	He explains his views and attitudes patiently and cool headedly.	4.2	3.2
3.	6	He patiently listens to others' views.	4.1	3.2
4.	9	He entrusts work to teachers based on individual capacity.	4.5	3.0
5.	10	He gives credit for the successful of a programme to attribute his assistants who have actually done the job.	4.2	2.6
6.	12	He motivates and encourages his colleagues.	3.9	2.3
7.	14	He maintains very cordial relations with his colleagues.	4.0	3.0
8.	15	He ensures that his role in the school is properly understood by others.	3.7	3.1
9.	18	He takes personal pains for the welfare of individual teachers.	4.2	2.9
10.	19	His policy is to give more and take less.	4.1	3.2
11.	21	He accepts and implements all the healthy suggestions of his colleagues.	3.8	2.7
12.	34	He does not care for his junior teachers.	3.1	2.1
13.	36	He respects group decisions.	4.0	2.8
14.	37	He listens to all but does his own.	3.5	2.5
15.	38	He finds enough time to listen to the members of school community	3.1	2.4
16.	40	He can bring harmony by correlating activities by teachers and others.	3.8	2.8

Table 4.27 (c) : Itemwise Mean Rating for Jon-oriented Leadership Structure

Sr. No.	Item No.	Items (Tool No. X)	Advanced District Schools	Backward District Schools
1.	3	He is not easily available in the school	2.0	2.1
2.	5	He is strict in exerting work from others.	2.1	2.3
3.	7	He reprimands others for slovenliness	2.3	2.5
4.	8	He dislikes irregularities.	3.3	3.7
5.	13	He is slow and idle	4.0	3.0
6.	16	He is a great disciplinarian.	3.5	3.0
7.	17	On important issues he takes decision himself.	4.0	3.8
8.	20	He is always ready to modify his plans and ideas whenever and wherever necessary.	3.2	2.4
9.	25	He is incapable of taking quick and firm decisions.	3.9	2.5
10.	26	He never hesitates to tell ^{the} truth though it may be bitter. [^]	4.0	3.1
11.	27	He does not follow his own decision but follows others' decisions.	4.0	3.1
12.	30	He is conservative and traditional	3.7	2.4
13.	39	He is capable of taking even unpleasant decisions with a peaceful mind after careful analysis	3.1	2.4

Table 4.27 (d) : Itemwise Mean Rating for Personal Qualities of Leadership

Sr. No.	Item No.	Items (Tool No. X)	Advanced District Schools	Backward District Schools
1.	4	He is highly egoistic	1.0	1.8
2.	11	He retaliates and is vangeance minded.	1.0	1.6
3.	22	He has a sense of propriety	4.1	2.8
4.	23	He is too proud of his status and power.	1.5	3.5
5.	24	His words and deeds are poles apart.	1.4	2.9
6.	28	He has a sense of humour.	4.2	3.1
7.	29	He falls an easy prey to flattery	2.1	3.5
8.	31	He is a man of high spirit and physically sound.	3.6	3.4
9.	32	His mental peace can be easily disturbed.	3.0	3.8
10.	33	He is devoted and of helping nature.	4.1	2.9
11.	35	To read his mind and to know him deep are difficult.	3.0	2.3

Table 4.28 (a) : Itemwise Mean Rating for Leadership Qualities of Supervisors Pertaining to General Knowledge of the Subject

Sr. No.	Sub-Items of Item I (Tool XI - I)	Advanced District Schools	Backward District Schools
1.	He has command over his subject	4.6	3.8
2.	He is thoroughly acquainted with the instructional material of his subject	4.5	3.1
3.	He is aware of modern trends in the subject	4.5	2.8
4.	He knows where students go wrong	3.5	3.0
5.	He has a habit of reading in his subject area	3.5	2.7
6.	He has a clear idea of what type of learning experiences can be organized in his subject	3.5	2.4
7.	He is aware of different audio-visual aids in his subject of specialization and knows how to use them	4.5	2.4
8.	He is fully acquainted with achievement tests, aptitude test, programmed learning and diagnostic test in his subject	3.7	1.8
9.	He can easily plan his lessons based on instructional objectives	3.7	3.5
10.	He is acquainted with research finding in the subject and can direct its utility	4.0	1.5

Table 4.28 (b) : Itemwise Mean Rating for Leadership Qualities of Supervisors pertaining to Curriculum

Sr. No.	Sub-Items of Item II (Tool XI - II)	Advanced District Schools	Backward District Schools
11.	He has a regular habit of reading about curriculum and teaching methods	4.2	3.4
12.	He can formulate a unit plan and frame unit tests.	3.8	3.2
13.	He can suggest remedial work based on the results of diagnostic tests	3.2	1.6
14.	He can guide the planning of learning experiences in any subject	3.5	2.2
15.	He can guide the teachers how to use motivation for better learning	3.8	2.0
16.	He understands the significance of group dynamics in the teaching of different subjects	3.8	2.1
17.	He understands the instructional requirements of both - talented and weak students	4.2	2.5
18.	He is acquainted with the method of preparation of home assignments and class assignments	3.8	2.4
19.	He is fully conscious as to how the teacher and pupils can make better use of library in class teaching	3.9	2.3
20.	He is well informed of the modern equipment and technology in learning	3.8	3.3

Table 4.28 (c) : Itemwise Mean Rating for Leadership
Qualities of Supervisors pertaining
to Abilities and Skills

Sr. No.	Sub-Items of Item III (Tool XI - III)	Advanced District Schools	Backward District Schools
21.	He can plan learning experiences to effect desired behavioural changes	3.9	2.4
22.	He can guide the planning of lessons according to the ability of teachers and needs of pupils	3.9	2.7
23.	He can give a lesson for demonstrating effective teaching	3.7	2.2
24.	He can direct seminars, workshops and such other inservice training programmes	3.8	2.2
25.	He has the required potentiality for preparing instructional materials, tests and teaching aids	3.9	2.3
26.	He is accomplished enough to create self confidence in his colleagues and pupils	4.0	2.8
27.	He has all the skills of a debator	4.2	2.9
28.	He can efficiently conduct teachers' meetings and group meetings	4.6	2.5

Table 4.28 (d) : Itemwise Mean Rating for the Leadership Qualities of Supervisors pertaining to Special Training and Innovations

Sr. No.	Sub-Items of Item IV (Tool XI - IV)	Advanced District Schools	Backward District Schools
29.	He has undergone specialised training in supervision	4.2	3.1
30.	He is trained/experienced in the proper use of techniques and methods of group dynamics	3.8	2.6
31.	He has experience of conducting workshops and seminars in the capacity of group leader/resource person	3.6	2.1
32.	He has wide and varied experience of guiding teachers in instructional improvement	4.4	2.4
33.	He has learnt through experience the art of minimizing experience	4.0	2.8
34.			

Table 4.28 (e) : Itemwise Mean Rating of Leadership Quality of Supervisors pertaining to Attitudes and Habits.

Sr. No.	Sub-Items of Item V (Tool XI - V)	Adv. Dist. Schools	Back. Dist. Schools
34.	He has democratic attitude	4.0	3.2
35.	He can adopt academic innovations	4.0	2.7
36.	He is always interested in collecting materials, equipments, literature, etc. which are used in teaching	4.3	2.7
37.	He has a regular habit of reading newspapers, magazines, etc., that would add to the stock of his knowledge	4.0	3.1
38.	He generally participates in seminars, workshops and conferences	4.0	3.5
39.	He has the habit of making notes on his reading, observation and experience	3.2	2.8
40.	He has an attitude of helping others rather than demanding help from others in the field of education	3.5	3.0

Table 4.29 (a) : Chi-square Value for the Leadership Qualities *to Knowledge* *L* *Pertaining*

	To a Great Extent	To Some Extent	To a Little Extent	Total
Advanced District Schools	94 (63.15)	41 (27.71)	13 (8.79)	148 (100.0)
Backward District Schools	19 (26.75)	32 (45.09)	20 (28.16)	71 (100.0)
Total	113 (45.12)	73 (36.40)	33 (18.48)	219 (100.0)

$$X^2 = 28.01$$

Table 4.29 (b) : Chi-square Value for the Leadership Qualities pertaining to Curriculum

	To a Great Extent	To Some Extent	To a Little Extent	Total
Advanced District Schools	75 (50.70)	55 (37.17)	18 (12.13)	148 (100.0)
Backward District Schools	22 (31.98)	25 (35.20)	24 (32.82)	71 (100.0)
Total	97 (41.34)	80 (36.19)	42 (22.47)	219 (100.0)

$$X^2 = 16.20$$

Table 4.29 (c) : Chi-square Value for the Leadership Qualities pertaining to Abilities and Skills

	To a Great Extent	To Some Extent	To a Little Extent	Total
Advanced Schools	76 (51.34)	55 (37.17)	17 (11.49)	148 (100.0)
Backward Schools	17 (23.97)	28 (39.42)	26 (36.61)	71 (100.0)
Total	93 (37.65)	83 (38.30)	43 (24.15)	219 (100.0)

$$X^2 = 23.13$$

Table 4.29 (d) : Chi-square Value for the Leadership Qualities pertaining to Specific Training and Innovation

	To a Great Extent	To Some Extent	To a Little Extent	Total
Advanced Schools	75 (50.70)	50 (33.80)	23 (15.50)	148 (100.0)
Backward Schools	17 (23.94)	28 (39.45)	26 (36.61)	71 (100.0)
Total	92 (37.32)	78 (36.62)	49 (26.06)	219 (100.0)

$$X^2 = 18.17$$

Table 4.29 (e) : Chi-square Value for Leadership Qualities pertaining to Attitudes and Habits

	To a Great Extent	To Some Extent	To a Little Extent	Total
Advanced Schools	86 (58.10)	46 (31.09)	16 (10.87)	148 (100.0)
Backward Schools	32 (45.09)	19 (26.75)	20 (28.16)	71 (100.0)
Total	118 (51.59)	65 (28.92)	36 (19.49)	219 (100.0)

$$X^2 = 9.67.$$

Chi-square value significant at .01 level is 9.21 when df = 2 for the tables.

In regard to the general leadership behaviour, chi-square value is 3.70 which is not significant. The percentages for the leaders of both the district schools are for H.H. 25 and 21 respectively; for L.H. they are 29 and 30 respectively; for HL they are 20 and 25 respectively, and for the LL group, they are 14 and 23 respectively. They show no significant differences between the two groups. This leads to the fact that so far as the person-oriented and job-oriented characteristics determining general leadership are concerned, the supervisors from both the groups are just at par with one another.

On neutral traits of supervisors, the advanced district schools group score more than the backward district schools group except on Items Nos. 23, 29 and 32. On the whole, on 8 out of 11 traits, the ratings of supervisors in the advanced district schools are showing better leadership qualities than the ratings of supervisors in the backward district schools.

As far as Part II of the inquiry is concerned, the chi-square values of 28.01, 16.20, 23.13, 18.17 and 9.67 respectively are highly significant pointing to the fact that supervisors from both the school groups under study differ significantly. Entries of percentages in the table show that the percentages of the supervisors falling in the first category are higher in the case of the advanced district schools than in the case of the backward district schools. This trend can be seen in every aspect of leadership. Similarly, the percentage of

supervisors falling in the last category is less in the advanced district schools than in the case of the backward district schools. This is also true in regard to every aspect of the inquiry in the present Hypothesis. Thus, a clear upward trend in the case of the advanced district schools and a downward trend in the case of the backward district schools is seen in all the aspects of leadership. The Hypothesis that supervisors in the advanced district schools have better leadership qualities than those in the backward district schools is sustained.

4.17 CONCLUSION

The analysis of the data and the testing of the fourteen hypotheses presented in the present chapter shows that so far as the effectiveness of school supervision in Central Gujarat is concerned, much is yet left to be improved and enriched. This acquired particular significance in the light of the fact that only 12.0 per cent of the teachers in the two districts hold post-graduate qualifications and 88.0 per cent have only graduate or under-graduate qualifications. Teachers and supervisors do not seem to have been exposed much to the new ideals, practices and programmes of supervision because only about 12.0 per cent of them hold a Master's degree in education, and their involvement in inservice teacher education programme is limited - it is confined to some progressive schools in urban and rural high schools, Around two-thirds of high

schools in the two districts studied are situated in urban areas and only one-third are in rural areas. A welcome feature of the schools is that most of them are of medium size - the average student population per school is around 360 and the average number of teachers per school is around 13. Out of every 10 teachers, 9 are trained ones. The supervisor, on an average, is a middle aged man. Only around 14.0 per cent of them have a Master's degree in school subjects and around 12.0 per cent of them have a Master's degree in Education. One-third of them have professional experience of 11 to 15 years, one-third of 5 to 10 years and the remaining below five years.

The results of the fourteen hypotheses formulated by the investigator to examine the data collected by him are summarised below :

Table 4.30 : Results of the Testing of the Fourteen Hypotheses

Hypo-thesis Number	Subject	Findings	Hypo-thesis accepted or rejected
1	2	3	4
I	(i) Teachers' sensitivity to new ideas of supervision	Teachers of advanced district schools differ significantly from the teachers of the backward district schools in respect of teachers' sensitivity and innovative instructional practices.	Accepted

(contd...)

Table 4.30 contd....

1	2	3	4
	(ii) Teachers' perceptions of innovative instructional school practices	Teachers of advanced district schools had higher mean scores on perceptions of teachers on innovative instructional practices than the mean scores of the teachers of backward district schools	Accepted
II (i)	Organizational Climate of Schools	(i) Advanced district schools stand higher in the openness of organizational climate of schools and lower in closeness of climate than the backward district schools.	Accepted
	(ii) School Size	(ii) The percentages of both the advanced district and backward district schools do not differ appreciably.	Rejected
	(iii) Equipment of Schools	(iii) The differences in the three categories of schools in both the types of districts are negligible.	Rejected
	(iv) Location of School	(iv) No differences were found between the schools of the two districts in respect of their rural-urban distribution.	Rejected
	(v) Age of Teachers	(v) On the average, the teachers of the two districts did not differ appreciably in respect of their age.	Rejected
	(vi) Length of Teaching Experience	(vi) In respect of their length of teaching experience, the schools of the advanced and backward districts did not differ significantly	Rejected

(contd...)

Table 4.30 contd...

1	2	3	4
III	Benefits to teachers from supervisory services	Teachers of the advanced district schools seem to be much more benefitting from the supervision services than the teachers of the backward district schools.	Accepted
IV	Newer programmes of Supervision	Advanced district schools would have newer programmes of supervision in comparison to the schools of the backward district schools.	Accepted
V	Supervisors, supervision tools, and Methods	(i) The group differences in respect of supervisors are significant between the two district groups of schools. (ii) The advanced district schools are having a good degree of regularity in maintaining various supervision tools. (iii) Advanced district schools are on a superior level than that of the backward district schools in the richness of the supervision-related activities.	Accepted Accepted Accepted
VI	Quality of supervision work in schools	The scale in regard to the quality of supervision tilts in favour of the advanced (Kheda) district schools.	Accepted
VII	Achievements of supervisory services	(a) Advanced schools were found to have achieved more gains from supervisory services than the backward district schools; and (b) The differences observed between the supervisors of the two levels of district schools are real and not due to the chance factors.	Accepted

(contd...)

Table 4.30 contd...

1	2	3	4
VIII	Implementation of new ideas of supervision	The possibility for the adoption of new concepts of supervision is definitely more in the case of the advanced district schools as compared to that in the backward district schools.	Accepted
IX	School programmes for educational improvement	The schools in the advanced district are in a superior position to the schools in the backward district in regard to their potentiality and favourable condition; for implementing newer school programmes for educational improvement.	Accepted
X	Conditions in schools favourable to educational improvement	Differences do exist between the two district school groups and are real and significant.	Accepted
XI	Conditions not favourable for educational improvement	As far as the obstacles to educational improvement in schools are concerned, supervisors do not face much difficulties in both the district groups of schools. However, in other conditions conducive to school improvement, the advanced district schools are better placed than the backward district schools.	Accepted
XII	Motivation of teachers about instructional improvement	So far as the factor that brings innovations and change in the secondary schools, the staff structure and motivation in the advanced schools is higher and better than those in the backward schools.	Accepted

(contd...)

Table 4.30 contd...

1	2	3	4
XIII	Diffusion of innovations	As far as the acceptance and diffusion of innovations are concerned, the advanced district school group/scores higher than the backward district school group.	Accepted
XIV	Leadership in secondary schools	<p>(a) As far as the person-oriented and job-oriented characteristics determining general leadership are concerned, the supervisors from both the district school groups are just at par with one another.</p> <p>(b) On neutral traits of supervisors, the advanced district schools score higher than the backward district schools.</p> <p>(c) A clear upward trend in the case of the backward district schools and a downward trend in the case of the backward district schools is seen in all the aspects of leadership.</p>	Accepted

It would, thus, be seen that so far as the effectiveness of school supervision is concerned, the educationally advanced district of Kheda scores over the educationally backward district of Panchmahals. The implication of this is clear.

A general upgrading of a district in basic educational provision in regard to physical plant, equipment, higher academic and professional qualifications of principals and teachers, raising the provision of facilities for inservice teacher education on a more extensive and richer basis, moderate schools size, improvement of school environment, helping the schools to move towards openness of organizational climate, improvement of teacher morale and raising the quality of school leadership - some of these measures are crucial. The more a district advances in education, the better and more effective supervisory services it can provide, and more effective school ~~supervision becomes~~ there would be more productive school system and supervision becomes a higher achievement index for schools.

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