C H A P T E R IV

METHODOLOGY

This section of the report describes the tools and instruments that have been constructed, selected or adopted to measure the variables under inquiry and their quantification. It will deal with the selection of the sample and statistical procedures adopted for the analysis of the data.

Before starting with the discussion as how the variables are measured and quantified it is necessary to know the innovation which is selected for the study.

INNOVATION STUDIED

The innovation selected for study in the present inquiry is 'setting better question papers'. This innovation has been linked with a series of efforts made for improving the examinations in India. The subjects of examination and evaluation has been of great concern to the educationists and administrators in India. Both educators

as well as the society are interested in knowing the progress and attainment of pupils. The society is interested in knowing that the work entrusted to its schools is being carried out on satisfactory lines and educators are interested in evaluating pupils' progress to decide upon the grading, promotion and the method of instruction.

The history of present examination system in India dates back to the foundation of the Universities of Calcutta, Madras, and Bombay in 1957 as a result of Woods' Despatch (1854). Since then successive commissions and committees on education were appointed to study the education system and eradicate its defects. Almost all of these commissions and committees emphasised the need for examination reform and suggested specific measures towards this end. The University Education Commission (1948, p.328) commented that, ' we are convinced that if we are to suggest any single reform in University education, it would be that of examination'. The Mudaliar Commission on Secondary Education (1952-'53) also pointed to the lack of validity, reliability and objectivity of our examination system.

Although all these commissions and committees gave specific suggestions to eradicate the defects of the examination system much was not achieved until 1958. In 1958 the All India Council for Secondary Education (established in

1955) set up the Central Examination Unit. The programme of examination reform initiated by the All India Council for Secondafy Education has been subsequently taken up by the National Council of Educational Research and Training (N.C.E.R.T.). The N.C.E.R.T. has been working vigorously to refine and improve examinations both at the secondary and higher stages of education. The council has developed a comprehensive programme to overcome all the defects of the existing examination system keeping in view the educational, social and psychological background of teaching and learning. Improvement of question papers to ensure reliability, validity and objectivity is one of its major programmes.As the external examination and evaluation programmes are directly controlled by the State Boards of Secondary Education and the State Departments of Education the major work of the N.C.E.R.T. has been with these agencies.

This movement in the States mainly concentrates on training paper-setters and teachers and publish literature on evaluation. Considerable work has been done in this direction in the state of Gujarat by the Gujarat S.S.C. Examination Board.

Examination reform movement in Gujarat was started some fifteen years back. First step in this reform movement was the introduction of objective type tests alongwith the

the traditional system of examination. In 1957, under the able guidance of Dr.Bloom a seminar on evaluation technique was organised on the all India basis in the Faculty of Education and Psychology, M.S. University of Baroda. As the seminar was held in Gujarat it attracted attention of many persons in the field of education in Gujarat. This was, again, a starting point of objective based evaluation. However, most of these examination reform activities were concentrated in the training colleges and the movement was not directly influencing the schools. Examination reform movement got more firm footing when Gujarat S.S.C. Examination Board started movement for ' Setting better question papers'.

As a step towards improving their examinations the Gujarat S.S.C. Examination Board and the N.C.E.R.T. organised the first workshop of paper-setters in September, 1963. In that workshop the paper-setters had the opportunity of considering various inter-related aspects of examination reform in the light of the new concepts and techniques of evaluation. As a first step the board made a thorough appraisal of the question papers in different subjects such as Gujarati, Hindi, Elementary Mathematics, Social Studies, General Science, etc., formulated and clarified instructional objectives in these subjects, and constructed improved essay, short answer and objective type questions based on instructional objectives. A series of workshop of paper-setters and moderators in the subjects of elementary

mathematics, social studies, general science, English, Gujarati were held during the last eight years. The literature developed in these workshops was scrutinised by committees of the board and published. These publications were also circulated to the schools in the state for their guidance. The board has organised workshops at local, district and state level. It has distributed its publications to all the schools.

Why one innovation ? : A pertinent question may arise as to why only one innovation has been selected in the present study. Instruments developed in other studies in the area of diffusion include a number of innovations to measure the adoption behaviour, the school or the individuals concerned such as Larry (1965), Marian (1966), Roosa (1969). However, there are studies where two or three innovations have been included and the analysis takes one innovation at a time. Studies dealing with one innovation are in Lin Nan et al.(1966), Andrulis(1970), Wallace (1970), Gross et al.(1971). In the present case the investigator first thought of taking the broad area of examination reform and a number of innovations within the same area for study. The difficulty, however, lay in the fact that a number of steps have been recommended for improving examinations in the course of last century. It is difficult, however, to fix a date when an innovation was taken up by a central agency with planned efforts for its diffusion. As far as the innovation 'setting

better question papers' is concerned, there has been a definite date when the state board started planned efforts for its diffusion. This has been the major reason to study only one innovation. The knowledge of the exact time when the first efforts were made to diffuse an innovation makes it convenient to measure the time lag between the launching of the innovation and the teacher becoming aware of it. Moreover, the stress on this innovation has not been faded away, as it happens in many cases, even after a lapse of about eight years, because this innovation is directly related to the measurement of quality of education which is an important aspect of education. Specially no other innovation is backed by such a strong diffusing agent viz. the S.S.C. Examination Board.

TOOLS

In Chapter III, it has already been said that the study is planned on the lines indicated by the studies conducted in 'Three Michigan High Schools' by Lin Nan et al. (1966) and 'Thailand Government High Schools' by Rogers, Joyce et al. (1966). While framing the main tool the questionnaire used in Michigan study and other three questionnaires (Questionnaires for the Principal teachers and Education Officers) used in Thailand Study, were consulted. Other relevant literature was also reviewed while framing the first draft of the questionnaire. The first draft of the

questionnaire was scrutinised by twelve experts in the field of education. The main questionnaire and all the tools that are used in the study were then translated in Gujarati and were cyclostyled for try out. Five schools from the district of Baroda were selected randomly for trying out the tools. Fifty eight teachers from these five schools responded to the questionnaire. After scrutinising the answer-scripts, necessary changes were made and the questionnaire was finalised for the final use.

The final questionnaire which was used in the study consisted of 96 items. Apart from the main questionnaire other four tools were also used. In the introduction to the questionnaire, the general purpose of the study and a short description about the innovation was given. The confidential nature of the individual's response was emphasized. Respondents were assured that the data would be used only for research purposes.

Because of the length of the questionnaire the following response-set item was inserted :

In politics I am

1. interested very much	1
2. to some extent	(2)
3. little interested	3
4. not at all interested	4

The respondent was required to encircle the number indicating the extent to which he agreed to the statement such as (2).

The questionnaire began with urban-rural background, age, sex, educational qualifications etc. The questionnaire was concluded with two items that are not used in this study. The two items sought information regarding names of the teachers of the district who were engaged in innovative work. Then the four tools were included in the questionnaire.

Reliability of the questionnaire was found out by test-retest method. It was administered to 40 teachers twice at an interval of six weeks. The test-retest reliability of the questionnaire gives a correlation coefficient of .88 which is fairly satisfactory.

Here it seems pertinent to discuss the types of items that are included in the questionnaire for each variable and the way they were scored :

MEASUREMENT OF CRITERION VARIABLES

As described in Chapter III, the criterion variable in the present study is the diffusion of innovation within a school. It has already been clarified how the concept of diffusion gets an added meaning when it is applied to the diffusion process within a system as well as the process

prevailing between the systems. It has already been discussed in Chapter III that the diffusion of an innovation within a school system has four aspects, viz. (i) awareness, (ii) adoption, (iii) internalization, (iv) process of self-perceived change orientation.

(i) Time of Awareness : The 'time of awareness' is a very positive variable which can be measured by a straight question which requires the respondent to tell in which year and in which month he came to know a particular innovation. Thus scoring of this variable requires some consideration. The teacher who comes to know about the innovation immediately after the innovation started from its source will be considered to be early as regards the 'time of awareness'. The innovation in the present study 'setting better question papers' was first discussed and publicised in September 1963. The following scoring scheme has been developed to quantify the 'time of awareness.'

Range	Scores
1963 September to 1964 August ..	5
1964 September to 1965 August ..	4
1965 September to 1966 August ..	3
1966 September to 1967 August ..	2
1967 September to 1968 August ..	1
After August 1968.. ..	0

This scoring key was used for the teachers who started their job as teachers before September 1963, i.e. the month and the year in which the innovation was introduced.

(ii) Time of Adoption : To measure 'time of adoption', a direct question was put to the respondent requiring him to give the month and the year in which he started using the innovation. The 'time of adoption' has something to do with the 'time of awareness'. A teacher who becomes aware of an innovation and starts practising it immediately, is showing a better adoption behaviour than a teacher who is aware of the innovation but does not practice it for long after he has become aware. The time lag between 'becoming aware' and the 'first practising' is the major basis for scoring this variable. The scheme of scoring is as under.

Time lag between awareness and the first practice		Score
1st year	....	5
2nd year	....	4
3rd year	....	3
4th year	....	2
5th year	....	1
more than 5 years	....	0

(iii) Internalization : To measure this variable four statements were framed - two positive and two negative. The teacher is asked to indicate the extent to which he agrees to

the statement on a five point scale. A specimen item is given below :

'The 'Programme of setting better question papers' could constitute an improvement in educational practice in any school.'

1.	agree very much	..	..	1
2.	agree a little	..	..	2
3.	don't know	..	..	3
4.	disagree a little	..	..	4
5.	disagree very much	..	..	5

In case of positive statements a score of five is fixed for 'agree very much' four for 'agree a little' and so on. In case of negative statements the weightage is reversed.

(iv) Process of self-perceived change orientation: For measuring 'self-perceived change orientation' four statements showing both favourable and unfavourable attitude towards change process in general were framed. The teacher is required to indicate the extent to which he or she agrees to the statement. For a favourable statement weightage of 5, 4, 3, 2, and 1 is given and for an unfavourable statement the weightage is reversed.

MEASUREMENT OF THE INDEPENDENT VARIABLES

In Chapter III it has already been mentioned that thirty variables were selected as independent or predictor variables. These variables are broadly classified into six categories. For the measurement of these variables a tool consisting of pointed questions or quasi scales has been prepared. The items prepared for different variables under various categories are discussed here.

Demographic Variables

This category includes six variables viz. age, sex, educational qualifications, recency of training, experience as a teacher and urban and rural background of the teacher. These variables being factual had one item each.

Institutional Variables

This broad category includes four sub-categories,viz. 'role perception,' 'perception of one's superior', 'perception of peers' and 'perception of students'. All the items under this broad category have been based on the Likert type of items.

The sub-category of 'role perception' includes two variables - 'role satisfaction' and 'feeling of security'. For measuring these two variables five items were included. The teacher was asked to indicate the extent to which he agreed with the items.

Illustrative item

' I am far from satisfied with the school environment here.'

1.	agree very much	.....	1
2.	agree a little	.....	2
3.	don't know	.....	3
4.	disagree a little	.....	4
5.	disagree very much	.....	5

Depending upon the nature of the item a(positive or negative) the scoring was done assigning a score of 5, 4, 3, 2, and 1 or 1, 2, 3, 4, and 5.

In the second sub-category six variables are included. ' Perceived psychological distance between self and the principal ' was measured with the help of six items which sought to explain how friendly and free the teacher is with principal as perceived by himself. Six items were included to get the perception of the teacher about the psychological distance between other teachers and the principal. The scoring scheme gives a higher score if the perceived psychological distance is less.

For measuring source credibility of the principal ten items on how often the principal encourages the teacher to take up new ideas, how honest, frank and well-educated as compared to other principals the principal is etc. were

prepared. Perceived change orientation included items on the principal's attitude towards change as perceived by the teacher. 'Vertical communication' included items on how often compared to other teachers of the school, a teacher thinks he talked with the principal about school problems and school improvement programmes. All these items are assessed on a five point scale.

Sub-category three is 'perception of peers' which includes five variables. For measuring 'self-designated opinion leadership', a list of five innovations was given and the teacher was asked to indicate whether in the past six months he talked about the innovation with any of his colleagues or not. If he has talked, whether it was because he was asked by his colleagues for his opinion or he asked them for their opinion or both.

Example :

Which of these happens more often ?
(a) you tell your colleagues about these topics or
(b) they tell you about the topics ?
..... I tell them
..... They tell me
..... Same amount

The scoring of the items on self-designated opinion leadership depended on the very first item. If the respondents reply for the first item was positive then only he was

required to answer other items constructed to measure self-designated opinion leadership. Wherever the respondent thought he took initiative in discussions a score of 3 was assigned; if he thought himself to be only a listener he scored 1 and if he thought he did both equally he scored 2. A person's maximum score on this scale is 16 and minimum is 1.

For the variable 'ascribed opinion leadership,' only one question was asked. The teacher was asked to name three teachers of his school whose opinion on crucial educational issues was very valuable to him. The frequency of a particular teacher i.e. the number of times that a particular teacher was ascribed by his colleagues was taken as the score on opinion leadership.

For measuring 'perceived cohesiveness' of the school faculty, four questions were asked and the responses were assessed on a five point scale.

Example :

'The teachers in this school get along with one another better than those in other schools in this district. '

1. agree very much	...	...	1
2. agree a little	...	...	2
3. don't know	...	...	3
4. disagree a little	...	...	4
5. disagree very much	...	...	5

The variable 'perceived frequency of general horizontal communication' includes two items on how frequently the teacher talked with his colleagues about any academic or non-academic issue. Perception of the frequency of horizontal communication about the innovation was also assessed on a five point scale.

In the sub-category ' the perception of the students ', only two variables were kept - each measured by one item. The variables of this category are ' the teacher's perception of students' benefit from the innovation ' and the 'teachers' perception of students' attitudes towards the innovation.'

Communication behaviour

This category is divided into two sub-categories - general mass-media exposure and professional communication behaviour.

For measuring general mass-media communication behaviour the teacher was asked to give information regarding the frequency of reading newspapers, non-educational magazines, number of non-professional books read during one month, frequency of listening to radio etc. Five items were included to measure this variable.

Psychological and personality variables

Five variables are included in this broad category. To measure 'cosmopoliteness or exposure to wider environment,'

information regarding the teacher's visit to different states, frequency of meeting eminent persons, experience of different colleges or universities, membership in different organisations are considered and weightage is given to get a quantitative score for this variable.

' Professional orientation of the teacher ' was measured by seeking information regarding the membership of the teacher in different professional organisations, his visit to extension centres, number of districts or states he visited for professional purposes.

' Need for autonomy ' is measured by seeking information regarding whether he makes his decisions himself, whether he solves his problem himself regardless of what other people would think.

Example :

' I go ahead and do things which I believe are right, regardless of what other people would think.'

1. agree very much 1
2. agree to some extent 2
3. don't know 3
4. disagree to some extent 4
5. disagree very much 5

The main questionnaire is given in Appendix - I. Appendix II contains the item numbers of the statements for each variable. Gujarati version of all the tools has been given in Appendix VIII

Measurement of conservatism vs radicalism

To measure conservatism vs radicalism the investigator surveyed the existing available tools used by different research workers. She came across two different tools, out of which she selected the tool developed by Dr.M.N.Palsane which has been given in Appendix III. The major consideration for selecting this tool was that it was developed in Gujarat and tried out on university students. The scale consists of 33 items. Seventeen items are such where if the respondents mark 'yes' it indicates a radical attitude; the other items indicates a conservative attitude if the respondent marked 'yes'. The scheme of scoring stipulates one point for each of the responses indicating a radical attitude and a zero for each of the responses indicating a conservative attitude. Thus the maximum score of a person on the scale can be 33 and a minimum can be zero. The investigator could not get the data about the reliability of the scale and therefore decided to calculate the reliability herself. The test-retest reliability with an interval of six week was found to be .84 which could be considered fairly satisfactory.

Measurement of teacher's attitude towards his profession

For measuring teachers' attitude towards their profession an attitude scale constructed by Patel (1959) was used. The scale consists of twenty two items. It is constructed on Thurstone's technique of equal appearing intervals and, therefore,

quantitative score is assigned to each of the statements of the scale. The scale value of the statements are more of less equally spaced between 0.5 and 11.0. The items of the scale with their respective quantitative scores are given in the Appendix IV. The respondent is required to check any three items which most adequately express his view about the teaching profession. The scores of all the checked items are added and the median value is taken to denote the measure of respondent's attitude towards teaching profession. The reported test-retest reliability and validity coefficient of the scale are .875 and .56 respectively.

Measurement of socio-economic status

The scale developed by Kuppuswamy (1962) was used for measuring socio-economic status of teachers. The inventory is self-explanatory and self-administering. Form A of the inventory (Appendix V) which is meant for adults was administered. The items of this form were scored and converted into socio-economic status class with the help of the score card which is given along with the form in the Appendix V.

The validity of this scale has been established by several methods.

Organizational Climate

To measure the organizational climate of the school the Organizational Climate Description Questionnaire (OCDQ)

(Appendix VI) developed by Halpin and Croft (1963) was adopted. This questionnaire identifies and describes the dimensions of organisational climate and measures them in a dependable way. The original O.C.D.Q. was composed of 64 Likert type items. The questionnaire was standardized on 71 elementary schools chosen from six different regions of United States taking 1151 teachers as the respondents. However, the questionnaire is proved to be a reliable and valid tool for measuring organisational climate of secondary schools as well. The questionnaire was adopted to suit Indian condition by replacing a few statements which has been given in Appendix VI.

The eight sub-test that the tool measures are characteristics of the group (Teacher behaviour) :

1. Disengagement
2. Hindrance
3. Esprit
4. Intimacy

Behaviour of the leader (Principal's Behaviour)

5. Aloofness
6. Production Emphasis
7. Thrust
8. Consideration.

The description of these eight dimensions according to Halpin and Croft runs as under :

1. Disengagement : It indicates that the teachers do not work well together. They pull in different directions with respect to any task. They gripe and bicker among themselves.

2. Hindrance : It refers to the teachers' feeling that the principal burdens them with routine duties, committee demands, and other requirements which the teacher construe as unnecessary busy-work. The teachers perceive that the principal is hindering rather than facilitating their work.

3. Esprit : It refers to 'morale'. The teachers feel that their social needs are being satisfied, and that they are, at the same time, enjoying a sense of accomplishment in their job.

4. Intimacy : It refers to the teacher's enjoyment of friendly social relations with each other. This dimension describes a social need satisfaction which is not necessarily associated with task accomplishment.

5. Aloofness : It refers to the behaviour of the principal which is characterised as formal and impersonal. He 'goes by the book' and prefers to be guided by rules and policies rather than to deal with the teachers in an informal, face-to-face situation. His behaviour, in brief, is universalist rather than particularistic. To maintain this style, he keeps himself at least, 'emotionally' at a distance from his staff.

6. Production Emphasis : It refers to the behaviour of the principal which is characterised by close supefvision of the staff. He is highly directive and task oriented. His communication tends to go in only one direction, and he is not sensitive to feed back from the staff.

7. Thrust : It refers to the behaviour marked out not by close supervision of the teachers, but the principal's attempt to motivate the teachers through the example which he personally sets. He does not ask the teachers to give of themselves anything more than he willingly gives of himself. His behaviour, though strictly task-oriented, is nonetheless viewed favourably by the teachers.

8. Consideration : It refers to the behaviour of the principal which is characterized by an inclination to treat the teachers 'humanly', to try to do a little something extra for them in human terms.

From these eight identified independent dimensions of organisational climate, Halpin and Croft specified a set of climates. They identified six organisational climates which can be arranged along a continuum defined at one end by an 'open climate', and at the other by a 'closed climate'. The six identified climates are termed as 'open', 'autonomous', 'Controlled', 'Familiar', 'Paternal' and 'Closed'.

The purpose of the questionnaire is to secure a description of the different ways in which teachers and principals behave in schools and of the various conditions under which they must work. The items in the questionnaire describe typical behaviour of conditions that occur within a school organisation. The items are not to be evaluated in terms of 'good' or 'bad' behaviour, but they are to be responded

in terms of how well the statement best describes the typical behaviour of teachers in group and the principal.

The scale against which the respondents indicate the extent to which each statement characterizes his/her school is defined by four categories :

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very often occurs

Scoring

The four categories of responses can be scored by simply assigning the respective categories any four successive integers such as 1, 2, 3, 4. Only three items i.e. item Nos. 5, 10, 21, 44 have to be scored negatively i.e. assigning the scores of 4, 3, 2, 1. The person who encircles 1 gets a score of 4, if he circles 2, he gets a score of 3 and so on. To find out the raw scores for each person, the scores of items for each sub-test have to be added and divided by the number of items in the corresponding sub-test. This will give eight sub-test by sub-test raw scores for each person.

Interpretation of Profile

For constructing the school profiles the scores of all staff under each sub-test were added. The mean of each sub-test was calculated. These raw scores on the eight sub-tests of OCDQ were converted into standardized scores both ways -

normatively and ipsatively. These doubly standardized scores gave the profile of the climate of the particular school.

The profiles were compared with the prototype profiles developed by Halpin and Croft to find out the climate of the schools. The similarity score was calculated for deciding the climate of the schools. The similarity score was found out by computing the absolute difference between sub-test score in the school's profile and the corresponding score in the first prototype profile and then in the second one, and so on. Thus the score of each school was compared with those of the six prototype profiles. By this tool the schools were categorised into schools with a definite climate type.

SAMPLE

The present study aims at finding out factors influencing diffusion of an innovation within school systems. The size of the school, the rural and the urban setting, the type of the management are some of the factors that have been found to influence the diffusion process. It was, therefore, decided to consider these factors while selecting the sample of schools. If all the schools are located in a compact area the social and the cultural environment which also influences the diffusion process would be controlled. The investigator, therefore, selected the fouf districts constituting South Gujarat for drawing the sample of schools. These are Baroda, Broach, Surat

and Bulsar districts. The type of management is an important factor as regards the adoption of innovations by personnel within the school is concerned. The nature of controlls prevailing in schools will differ in case of government and non-government schools. In Gujarat there is a preponderance of non-government schools. In the district of Baroda there is not a single government school, in Broach there is only one, and in the Surat district there is one government school. All the schools of Bulsar are non-government institutions. It was, therefore, decided that the sample will have only non-government institutions.

Again, almost all the schools located in these districts are grant-in-aid schools. Among the four districts there are only five schools which do not take grant from the State government. Out of these five schools one is a public school, three are Kendriya Vidyalayas run by Central School Organisation and one is run by a public sector undertaking. The investigator collected the list of schools from the district education officers of the four districts and selected on a random basis the schools from urban and rural areas proportionately. In all fifty five schools were selected. Out of these fifty five schools twenty five are located in urban area and thirty schools are located in rural areas.

Again, thirtyseven schools were co-educational institutions and ten boys schools and eight girls schools.

A study of this type can be made using a case study approach by studying a few schools intensively. However, as the research design visualised a multivariate analysis approach it was necessary to have a larger sample of teachers. For this reason a large number of schools were selected for collecting the data. The total number of teachers from these schools, who were in position by September 1963 when the secondary School Certificate Examination Board, Gujarat, sponsored for the first time the innovation, was 442. All these teachers were included in the sample.

STATISTICAL TECHNIQUES USED

The statistical techniques to be employed in a study depends upon the objectives of the study and the nature of the hypotheses to be tested.

The major objectives for the present study are :

1. to find out the characteristics of teachers associated within their adoption behaviour,
2. to develop a multiple regression equation with a view to predicting the diffusion of innovations in a school system.

As far as the first objective is concerned the technique of analysis will involve a correlational study. As regards the second objective it was decided to apply multiple regression analysis technique to develop the prediction equation. This would

necessitate the development of a correlation matrix of all the variables included in the study.

DATA COLLECTION

Difficulties of mailed questionnaire are quite well known. Data collection with the help of mailed questionnaire takes much more time and all the questionnaires are not returned. Moreover, even if they are returned quite a good amount of them do not come in time and some times all the enquiries are not responded. To avoid these difficulties it was decided that the investigator should administer them in person. Due to following reasons it was decided to administer the questionnaire in person to the assembly of the teachers.

1. to provide opportunity to establish rapport and thereby to ensure getting reliable data,
2. it also economises time and provides complete and usable returns.

The schools were informed two weeks prior to the visit and the dates were confirmed for administering the questionnaire. On the scheduled dates the teachers used to assemble in a classroom where the questionnaire was to be administered. In all the schools the investigator was introduced by the principal of the school. Of course,soon after introduction the principals used to leave the room so that teachers can feel free in responding the questionnaire. It was assured in

writing and verbally by the investigator that the responses will be kept strictly confidential. In some cases the teachers did not write their names. After the teachers completed the questionnaire each and every item was checked to find out if anything has been left out. If any item was not responded by chance, the teacher concerned was requested to complete it.

Thus the investigator visited all the fifty five schools and administered the questionnaire to the teachers in person. The data collection from all the 442 teachers of the selected fifty five schools took nearly two and a half month. The scoring was done by the investigator herself. The next chapter deals with the statistical analysis of the data and discussion of the findings.