

**A STUDY OF JOB SATISFACTION
O F
Secondary School Teachers In Shillong And
Leadership Characteristics of
THE HEADS/PRINCIPALS**

**THESIS
SUBMITTED FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY (PH.D)
IN EDUCATION**

BY
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UNDER
THE SUPERVISION OF
DR. D.S. BABU



TO THE
DEPARTMENT OF EDUCATIONAL RESEARCH AND STUDIES
NORTH - EASTERN HILL UNIVERSITY
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SHILLONG

COMPUTERISED

This is to certify that this investigation entitled "A Study Of Job Satisfaction Of Secondary School Teachers in Shillong And Leadership Characteristics Of The Heads/ Principals" was conducted under my supervision in fulfilment of the requirements of the Ph.D. Programme of the North Eastern Hill University, Shillong. The data collected for this study and the findings and interpretations reported in it are the result of the investigator's own efforts and observations.

It is also certified that the modification suggested by the examiners have been incorporated in this thesis.

Dated 10th March 1992



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A C K N O W L E D G E M E N T S

The investigator takes this opportunity to acknowledge her deepest feelings of gratitude to Dr. D.S. Babu under whose competent guidance the work has been done. It is due to his generous help and continuous encouragement which has enabled the investigator to persist in her efforts to complete the study.

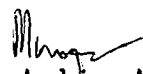
Gratitude goes to the teachers, the office staff, the Librarian of the Education Department and the Librarian and the staff of the Central Library N.E.H.U. Shillong for the kind help they have rendered to the investigator during the course of her work.

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Dated Shillong

The 12/3/92.


Medalin Nongrum

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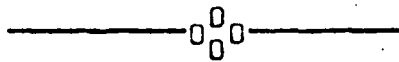
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CHAPTER - I

INTRODUCTION

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A STUDY OF JOB SATISFACTION OF SECONDARY SCHOOL TEACHERS
IN SHILLONG AND LEADERSHIP CHARACTERISTICS OF
THE HEADS/PRINCIPALS

C H A P T E R - I

I N T R O D U C T I O N

1.01 AN EXAMINATION OF THE IMPORTANT TERMS INVOLVED IN
THE STATEMENT OF THE PROBLEM

The title of the study as stated above contains two major terms, viz. 'Job Satisfaction' and 'Leadership characteristics'. In this chapter an attempt has been made to clarify and discuss the meanings of these two terms and to examine the theories underlying the concept of Job Satisfaction. These definitions will help to establish the frame of reference with which the investigator approached the problem. Consequently, the definition of Job Satisfaction to be adopted for the present study will be formally stated so as to permit the construction of scales to assess Job Satisfaction.

1.02 THE CONCEPT OF JOB SATISFACTION

Meaning of the word "Work". "Job" and "Job Satisfaction"

"Work" can be defined as "the application of human effort to achieve certain ends that often results in monetary benefits".

The Oxford Dictionary has put it as "the application of effort to a purpose, force in action, doing of something, a task or a material to be operated on, doings or experiences of a specified kind, employment especially as a means of earning money, a thing done, made a product or manifestation". Thus work implies the expenditure of human effort to perform a job or attain a result. It generally involves a way of earning a living.

The word "Job" is used in a more restricted sense. According to lexicographers it means "a piece of work to be done". It refers to a very specific task and somehow the word is sometimes used for work at a lower order. It may not be usual to refer to a scientific experiment, or an artist engaged in painting or a poet composing a verse as engaged in a job.

However the expression 'job satisfaction' covers both the satisfaction derived from being engaged in a piece of work or in any pursuit of a task of a higher order.

The study of job satisfaction is closely related to the question "why do people work?" or "what does a worker want from his job?" Since the classic Western Electric Company studies were carried out at Hawthorne, beginning in the late 1920's, a great deal of research has been directed towards identifying factors that influence satisfaction which an employee derives from his job.

The simplest answer to the question "why does a man work?" would be - to satisfy his needs. All behaviour serves some purpose for the individual, e.g. talking at a conference, writing an article for a journal, eating, sleeping etc. - they all serve some purposes and satisfy some needs.

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Beyond this broad answer, the explanation seems to get complex and is subject to much disagreement. It seems to depend on our view of man. For instance there can be an economic view of man by which we expect a man to work because work produces wealth and wealth is useful for everybody. The underlying assumption of this conventional economic view of man is that a man does, should and will work for economic benefits. This view of man enjoyed widespread popularity before the Industrial Revolution in the mid 1800's and even in the days of the scientific movement. It was assumed that employees were uniformly motivated by a desire for money and that other motives were either non-existent or of little consequence. As a result, to satisfy workers, various financial incentives were offered. But all these in some cases proved futile. This led to the search for other reasons than financial incentives as factors of satisfaction in work.

At this crucial time came the 'Hawthorne Studies'. A deeper appreciation for the worker's psychological state as well as the motivational properties of social relationships in the job came into prominence as a result of these studies!

¹E. Mayo. The Human Problems of an Industrial Civilization. New York, Mac Millan 1933.

The inadequacy of the conventional economic view of man can best be indicated by considering the concept of motivation. It is a fundamental explanatory concept related to the "why" of behaviour. Organisms continually experience needs or wants which impel them to action. A man can be said to be motivated when he is driven either to attain some goal or to avoid some undesirable consequences. For example when a hungry person needs food, he is driven by hunger, and motivated by a desire to obtain food in order to satisfy his needs. The internal needs of an organism are hypothesised at the core of some theories of motivation. Of these the late Abraham Maslow² proposed an interesting theory concerning human needs and their effects upon human behaviour. His theory helps in understanding the behaviour of people at work. He suggested that human needs be classified into the five different classes:

1. Physiological needs .
2. Safety needs
3. Love needs.
4. Esteem needs
5. Self actualisation needs.

² A.H. Maslow, "A Theory of Human Motivation"
Psychological Review, 1943 (p 370 - 376)

In addition to these five categories, Maslow mentioned the category of order and aesthetic needs, although he did not elaborate on this category.

Maslow states that human needs are arranged in a hierarchy of prepotency. According to him the lower needs must be adequately satisfied before the next higher need can emerge. A "man" works for satisfying his biological needs such as food and shelter. He also works for satisfying his social needs such as his social position and prestige. Finally on satisfaction of prior needs in the hierarchy a person may be motivated to work for satisfying his needs of self actualisation, such as self-fulfilment and personal growth. It is quite true that man lives for bread alone - when there is no bread. But what happens when there is plenty of bread and when his belly is chronically filled? At once, other higher needs emerge, and these rather than physiological hunger dominate the energies and when these in turn are satisfied now and still higher needs emerge, and so on.³

³ Maslow Ibid 2

When in the work situation the lower needs in the hierarchy are satisfied, the individual starts thinking about his higher needs and potentialities such as gaining recognition of his work, achievement of prestige, self expression, possibility of growth etc. Only when all these needs have been satisfied can a man give of his best, realise his true potential and reach a state of self-fulfilment. Since a good part of his working life is spent at work, it stands to reason that work must be satisfying in the broadest sense of the term. Work must provide an opportunity for a man to satiate all his needs, so that his full potential is released for utilisation. The answer to the question, "why people work"? can best be given in the words of Blum. "Work is a form of activity that has social approval and satisfies a real need of the individual to be active, to produce, to create, to gain respect, to acquire prestige and incidentally to earn money - these are some of the reasons that people work".⁴

Motivation is an important factor in job satisfaction and theories of job satisfaction. It is now proposed to briefly review some principal theories of Job Satisfaction.

⁴M.L.Blum and J.C. Naylor - Industrial Psychology - Its theories and Social Foundations, New York, Herfer & Row 1958 (p 350).

Theories of Job Satisfaction:

There seem to be three main theories of Job Satisfaction. While these may spring from different traditions and outlooks, there does seem to be some basis for integrating them into "a relatively consistent frame work".⁵

The Need Fulfilment Theory:

This theory originates from two logical assumptions; (a) a person is satisfied when he gets what he wants; (b) the more he wants something or the more important it is for him, the more satisfied he will be when he obtains it and the more dissatisfied he will be when he does not get it. Vroom⁶ has suggested two methods (the subtractive and multiplicative) for the measurement of Job Satisfaction based on this concept of it being a direct function of the extent to which an environment corresponds to one's need structure.

The subtractive model proposes that Job Satisfaction is a direct function of the discrepancy between a person's needs (importance attached to them) and the extent to which the environment provides satisfaction or fulfilment of these needs; the greater the discrepancy the less the satisfaction while a smaller discrepancy would indicate

⁵A.K. Korman; Industrial and Organisational Psychology Chapter VII; Prentice Hall Inc. New Jersey, 1971.

⁶V.Vroom; Some Personality Determinants of the effect of participation; Journal of Abnormal and Social Psychology, 1959, Vol.59, (Pages 322-27).

greater job satisfaction. Vroom has shown that the use of this subtractive model may sometimes distort results; for example, individuals with need (importance) levels of 1 and a fulfilment level of 1 would, on the basis of this model be rated as having the same satisfaction as an individual with a need level score of 10 and a fulfilment of 10 (Discrepancy score: $1-1 = 0$; and $10-10 = 0$; are the same in each case). Vroom therefore suggested the multiplicative model wherein the individuals' needs scores are multiplied by the fulfilment scores and the products for the various needs added to give overall job satisfaction scores. Experimental evidence has provided some support for both the models mentioned, without establishing the clear superiority of one over the other. Yet other studies seem to suggest that the need fulfilment theory is only a partial answer in the search of an adequate theory of job satisfaction.

The Social Reference Group Theory:

This theory does not focus interest on the needs, desires or interests of a given individual but on the opinions and beliefs of the group to which the individual refers for guidance. Such groups known as reference groups would be responsible, according to the theory, for determining whether a person is satisfied with a job or not; satisfaction would depend upon whether or not the job

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meets the interests, desires and requirements of the reference group. Hulin⁷ obtained strong support for this hypothesis in a study involving female clerical workers. With job satisfaction being held constant, he found that a person living in a well to do locality was likely to like his or her job; this may be attributed to the fact that individuals from these localities have a higher reference level in evaluating job conditions (needs). There are some support from other studies for the Social Reference Group Theory; but like others of its kind, it cannot claim to provide explanations for all phenomena encountered. It is obvious, for instance, that while many individuals are influenced by opinions and group evaluation of environmental phenomena, many are not so influenced to any great extent.

Herzeberg's Motivator-Hygiene Theory has stimulated a lot of research; its findings have, however, not always satisfied its assumption. It was developed by Herzberg Mausser and Shyderman and its rationale is provided by Maslow's (1964) theory of a prepotent hierarchy of needs. According to this theory man's needs are satisfied or fulfilled in a certain hierarchy of importance. Thus, certain basic psychological needs such as those for food and water, for

⁷C.L. Hulin; Effects of Community Characteristics on measures of Job Satisfaction; Journal of Applied Psychology, 1966 Vol.50 . (Pages 185 - 192).

security etc. must be satisfied before the emergence of other social needs such as those for belongingness, love, recognition etc. Again the satisfaction of these needs is necessary before other higher order needs such as those of self actualisation etc. can be fulfilled. Herzberg contends that in the contemporary American Society the basic needs are generally satisfied and hence job satisfaction will usually be dependent upon the fulfilment of the higher order needs in the hierarchy (self actualisation etc.). These considerations led Herzberg to propound the two factor theory of job satisfaction, whose propositions may be summarised as below :

(a) Job Satisfaction is a function of the environment, supervision, co-workers and general job content; these may be termed as the "hygiene" factors.

(b) Job Satisfaction is a function of challenging stimulating work activities or work content, these are termed as the "activator" factors.

A great deal of the evidence which did not support Herzberg's propositions was attributed to the use of restricted samples of occupations and the methodology of data collection e.g. the use of open-end reporting in which subjects were required to describe their most satisfying and dissatisfying incidents in a job. While a number of studies point to these limitations and a tendency towards

over simplification there is some reason to believe that motivators are considered more important than the hygiene factors in job satisfaction. This finding, according to Korman^B, can probably be accounted for in terms of the Social Reference Group theory.

Thus it seems as if need fulfilment themselves and Social Reference Group theories are the most adequate explanations of job satisfaction. Research has had some limited success in attempting to integrate these two theories and in dealing with the problems arising out of their integration, for example, problems dealing with combination to predict a given individual's job satisfaction or the problem of assigning weights to each theoretical explanation in an integrated theory.

A great deal of research however has not been concerned with justifying theoretical assumptions but with trying to discover what factors determine or are related to job satisfaction. Findings in this direction have discovered relationships between job satisfaction and factors such as occupation level, the content of the job, leadership and supervision, pay and promotional opportunities, working conditions and inter-relations in the work group and

^BA.K. Korman : Industrial and Organisational Psychology; Chapter VII, Prentice Hall, New Jersey, 1971

personal factors such as the age and educational level of workers. Sometimes there have been explanations provided for these relationships on the basis of the need fulfilment and social reference group theories.

Job Satisfaction : Definition:

The terms job satisfaction, job attitudes and morale are often used synonymously as reflecting effective orientations on the part of the individual towards his job. A positive orientation towards one's job may contribute to job satisfaction, since the latter comprises a number of related needs. Job satisfaction may further contribute to morale. M.L. Blum has defined job satisfaction, "as the result of various attitudes the employee holds towards his job, towards related factors and towards life in general."⁹

This complex of various attitudes is related to many needs connected with work, wages, supervision, steadiness of employment, promotion prospects, relationship to associates and colleagues, and many other specific factors play their part in making the worker satisfied or dissatisfied with his job. Apart from these, his own needs and aspirations, general adjustment, as well as his social relationships may have a vital role in determining job satisfaction.

⁹M.L. Blum and J.C. Naylor, Industrial Psychology: Its theoretical and Social Foundation, New York, Harper and Row, 1968 (pages 350-353).

In short "job satisfaction may be expressed as a generalised attitude resulting from many specific attitudes of an individual in three areas, viz. specific job factors, individual adjustment and group relationships."¹⁰

Hoppock views it "as any combination of psychological, physiological and environmental circumstances that causes a person truthfully to say, "I am satisfied with my job".¹¹

Bullock in his study of social factors related to job satisfaction has defined it "as an attitude which results from a balancing and summation of many specific likes and dislikes experienced in connection with the job these evaluations, may rest largely upon one's own success or failure in the achievement of personal objectives and upon the perceived contribution of the job and company towards these ends".¹²

Smith in his 'Psychology of Industrial behaviour' holds that "job Satisfaction is the employee's judgment of how well his job on the whole is satisfying his various needs."¹³

¹⁰ M.L. Blum, Ibid 9.

¹¹ R. Hoppock, Job Satisfaction, New York, Harper 1935.

¹² R.P. Bullock, "Social factors related to job satisfaction", Research Monograph, No.70, Columbus. Ohio State University, Bureau of Business Research 1952.

¹³ H.C. Smith; Psychology of Industrial Behaviour, Newyork, McGraw Hill, 1955.

For the purpose of this investigation it will be assumed that the fulfilment of certain needs related to a job would determine the satisfaction derived from it. Further it is maintained that these needs would not all be considered equally important. The mode of measurement of Job Satisfaction adopted for the present study is presented in detail in Chapter III which deals with preparation of the Tools (page 54).

1.03 : LEADERSHIP :

Its Concept and Definitions :

The term leadership has a wide connotation. To some, leadership may mean a property of a group, while to others it may refer to the characteristics of the individual. To those who emphasise group leadership it may be synonymous with prestige, with the holding of a particular office or with the performance of activities important to a group or with an emotional relationship between the leader and the group. To those who stress the individual aspect of leadership it may mean the possession of certain personality characteristics such as dominance, control, aggressiveness etc.

Kerth Davis, in 'Human Behaviour At Work', states that "Leadership is the ability to persuade others to seek defined objectives enthusiastically. It is the human

factor that binds a group together and motivates it towards goals It is the ultimate act that brings to success all the potential that is in an organisation and its people"¹⁴.

According to Katz and Kahn¹⁵ there are three major meanings attached to the concept of leadership in the social science literature; a positional attribute, a personal characteristic and a category of behaviour.

These three major meanings can be made clear in certain of the definitions which follow.

Figurs in 1935, defined leadership as "a process of mutual stimulation which, by successful interplay of relevant differences controls human energy in the pursuit of a common cause".¹⁵ This definition clearly expresses the notion of dynamic interaction between a leader and followers working towards agreed upon goals. The same

¹⁴ Kerth Davis, Human Behaviour At Work, 5th edn. McGraw Hill Book Company, Newyork 1977 (p.107)

¹⁵ Daniel Katz and Robert Kahn; The Social Psychology of Organisation; John Wiley, Newyork, 1966 (p.301)

¹⁶ Paul J.W. Figers; Leadership and Domination; Houghton Mifflin, Boston 1935 (p.16).

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theme is evident in Stodgill's definition, "the process (act) of influencing the activities of an organised group in its efforts towards goal setting and goal achievement."¹⁷

Hemphill proposed a more action-oriented definition of leadership "the initiation of a structure in interaction as part of the process of solving a mutual problem".¹⁸

Lipham, in differentiating leadership from administration modified the Hemphill definition only slightly, defining leadership as "the initiation of a new structure or procedure for accomplishing an organisation's 'goals and objectives'".¹⁹

This definition calls attention not only to action but to specific kinds of action: goal attainment or goal change.

The definitions presented above focus on leadership as a process. As this process involves people who are leaders more clarity about it can be obtained by attempting to arrive at a definition of leader.

¹⁷ Ralph Stodgill, "Leadership, Membership and Organisation" Psychological Bulletin Vol. 47 (January 1950) (p.4)

¹⁸ John K. Hemphill, "Administration as problem solving in Administration theory in Education; Andrew W. Halpin ed. Chicago Midwest Administration Centre 1958 (p. 96)

¹⁹ James M. Lipham, "Leadership and Administration in Behavioural Science and Educational Administration; The sixty-third year book of Griffithed Chicago; The Society, 1964 (p.122)

Halpin notes that the most common usage of the term leader is "in relation to an outstanding member of a class."²⁰ The school executive or Principal/Headmaster qualifies as a leader according to this definition in that he is "outstanding" by virtue of his assigned responsibilities. Interestingly it would be possible to convert any of the preceding definitions of leadership to definition of leader by single word changes. Thus the leader is the individual responsible for "the process of mutual stimulation" (Pigors); "the process of solving mutual problem" (Hemphill); "the initiation of a new structure or procedure" (Lipham). Fiedler, after reviewing the definitional problems, defines the leader as "the individual in the group, given the task of directing and co-ordinating tasks relevant to group activities or who, in the absence of a designated leader carries the primary responsibility for performing these functions in the group."²¹

Approaches may also be made in terms of traits (possessed/acquired by leaders) or in terms of group functions - the activities, performances, acts of group

²⁰ Andrew W. Halpin, Theory and Research in Administration - Mac Millan, Newyork, 1966 (P.81).

²¹ Fred E. Fiedler; A theory of leadership Effectiveness McGraw Hill, New york 1967 (p.8)

members (including leaders) to achieve certain outcome, i.e. group goals, moving group to goals, improving quality of interaction amongst members, building cohesiveness, making resources available to group. This has been stressed by writers such as Bernard, Cattell, French, Gibb, Likert, Lipitt etc.²²

Leadership functions : Most researchers assume that leaders exert more influence on a group than ordinary members. There is, however, no agreement about what kind of influence this is or in what areas/domains it occurs. Cattell suggests that all group functions (members' action to help group to achieve desired status) are leadership functions, e.g. achievement of goals, human relationships, satisfaction of members, minimum cost to members etc. Others like Kretch and Crutchfield²³ restrict themselves to more restricted notions such as planning, decision making, co-ordinating e.g. planning, policy making, expertise-controlling internal relationships, awarding rewards/punishment etc. Present research does not enable us to clearly specify what leadership functions are. Hence it may be more profitable to identify group functions and what determines their allotment to certain offices or individuals.

²²Dorwin Cartwright and Alvin Zander; Group Dynamics Part V Chapter 24; Page 304 ; Tavistock Publications, London 1953.

²³D. Cartwright and A. Zander; Ibid 22, p. 305

It must be realised that certain behaviours which serve group functions in certain circumstances/situations may not do so in others. For example a pilot of a bomber crew may be an excellent leader on bombing missions but less capable when the plane crashes and survival is the main aim of the group. Different situations seem to require different behaviours to promote group function.

Fiedler's study suggests that leadership functions in a group may be determined by the degree of group structure, highly structured groups may be those where members are able to verify correctness of group's decisions, group duties are clearly stated and fewer paths and steps are required to reach group goals. Fiedler suggested that effective leaders tend to be more assertive in more structured situations and give more freedom to group members and are more supportive in less structured situations.

Two basic types of Group function : Most group objectives may be classified under two heads - (a) those concerned with the achievement of some group goal and (b) those concerned with maintenance or strengthening of the group. Examples of group behaviour promoting group goal achievement are, (i) initiates action (ii) keeps members' attention on the

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goal (iii) makes information available (iv) clarifies issues (v) evaluates the quality of work done (vi) makes expert information available. Examples of behaviours serving group (maintenance) functions are : (i) keeps interpersonal relations in check/pleasant (ii) arbitrates disputes (iii) provides encouragement (iv) stimulates self direction (v) increases interdependence among members etc.²⁴

It must be realised however that group achievement and maintenance-functions may be related thus in promoting the solution of difficult problems; group solidarity may be achieved by promoting one function, may be, at the expense of another, e.g. in motivating a group towards a goal, internal friction may be encouraged even though the end is achieved.

Many studies have revealed that specialists (leaders) may emerge in these two functions - goal (task) achievement and group maintenance in a family for example a father is usually the task specialist and the mother the social emotional specialist.

Factor analytical studies have indicated that these two factors - task (goal achievement) and group maintenance - account for as much as 83% of common variance leader behaviour. Sometimes these factors have been termed as "initiating" and "consideration" structures. Generally

²⁴D. Cartwright and A. Zander; Ibid 22 p.306

leader behaviour which is high on both these structures would increase group effectiveness.

It has been noted that threats to group maintenance functions, often results in leadership emerging to enhance these functions. This may not be an invariable "law of leadership" but it does seem possible that groups have tendencies towards self preservation.

Similarly goal (task) achievement functions become more valuable when groups accept important goals and if such goals are threatened.

For the purpose of this study it was proposed to adopt ten leadership characteristics (five of these concerned with the achievement of some group goal and five of these concerned with the maintenance or strengthening of the group) for investigation. The following characteristics/ leadership functions are listed which were used for further work in the construction of rating scales to be used in this study. A number of studies in leadership had revealed that these characteristics were frequently mentioned.

1. Initiates action
2. Helps to focus members' attention on group goals.
3. Clarifies problems.
4. Makes information available to all members.
5. Evaluates quality of work done.
6. Helps to maintain good relationship in the group.
7. Settles disputes between members.

8. Provides encouragement when required.
9. Stimulates self direction.
10. Exercises inter-dependence among members

1.04. NEED AND IMPORTANCE OF THE STUDY :

The present study was conducted by the investigator to assess the job satisfaction of Secondary School teachers and its relationship to perceptions of leadership characteristics of their Heads/Principals. It was presumed that very few studies related to this topic have been conducted in this part of the country. Some of the reasons justifying the need for a study of this type may be stated in the assertions that follow :

Austin A.D.Souza²⁵ in his book, 'The Human factors in Education' has pointed to the importance of job satisfaction as an essential element in effective teaching. In his own words he states that 'A satisfactory and satisfying philosophy of life is the best possession of a teacher amid the shifting sands of modern life, without it he will be like a ship without a rudder, and will be in grave danger of suffering shipwreck and carrying his pupils in destruction with him.'

The process of education, it is agreed generally, is linked with productivity and national development. It would, hence, be justified to assume that satisfied and

²⁵Austin A.D.Souza; The human factor in Education, Orient Longman Ltd. Calcutta 1969 (p.272)

devoted teachers would make a better job of their vocations and hence promote the national cause more effectively.

Job satisfaction is closely related to the mental health of the teacher. A sound mental health remains the sine-qua-non for the worker to be effective at the optimum level of his efficiency. This mental health is obtained in the satisfaction of the workers' basic human needs. The extent to which the teaching profession provides opportunities to gratify the needs of working teachers enables them to obtain satisfaction and hence contributes to the development of a desired level of mental health.

Among the many factors which may be considered with job satisfaction apart from the fulfilment of needs related to a job, supervision or leadership, may be an important one. It is the Headmaster or principal who has to set the tone of a school, to make people follow a desired path and to achieve the goals set by the school authorities.

The success of any school organisation depends to a large extent upon the quality of the personnel engaged in the educational process and upon the effectiveness with which they discharge individual and group responsibilities. The principal is one of the most important persons in the process of school education. It is he who exercises control over or manipulates other elements in the system in order

to achieve pre-determined objectives. Therefore the success of any educational organisation depends to a great extent upon the effective behaviour and functioning of the principal or head.

Mary C. Niles²⁶ in the "Essence of Management", pointed out that, 'getting the best out of people in their day to day lives is not an easy job'. The variety of factors which makes the workers decide to give of their best or not, to work hard or to go slow, to cooperate or to go against, are to a great extent due to the influence of mind and emotions. Among the many factors which necessarily affect the mind and the emotions of the workers, supervision is of special significance.

The attitude of the Supervisor or leader, the way in which he speaks and his response to the problems of the workers, how he gives his advice, allows them to utilise their understandings and wisdom in work and creates a team spirit in them, plays an important role in creating better human relations or disturbing them

In view of the above assertions, it was maintained that this study was worth undertaking.

1.05: OBJECTIVES OF THE STUDY :

- (1) To assess the job satisfaction of Secondary School

²⁶ Mary Cushing Niles, "The Essence of Management"; Orient Longman, Bombay 1956 (p.83)

teachers in Shillong and identify the existence of any trends/patterns in the distribution of measures of job satisfaction.

(2) To investigate whether job satisfaction is associated with the type of administration (Government/Deficit/Private etc.) of the schools under investigation

(3) To investigate whether differences in job satisfaction of teachers are associated with factors such as sex, religious background, age, qualification and experiences (in terms of duration of service) of teachers in the sample.

(4) To investigate the leadership characteristics of Principals or Heads of these schools as perceived by teachers in the schools subjected to investigation.

(5) To investigate if there is any association between job satisfaction of teachers and their perception of leadership characteristics of principals or Heads of the schools concerned.

1.06: STATEMENT OF THE PROBLEM :

The title of this study has been stated as "A STUDY OF JOB SATISFACTION OF SECONDARY SCHOOL TEACHERS IN SHILLONG AND LEADERSHIP CHARACTERISTICS OF THE HEADS/PRINCIPALS".

1.07: SCOPE AND DELIMITATION OF THE STUDY :

Prior to attempting a statement regarding the scope of the study it may be desirable to write a few words about

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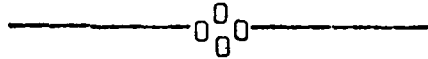
Shillong the locale of the study. Shillong, the capital of Meghalaya, is a lovely hill station located on the northern slope of the Shillong Peak, the highest peak in the State. The Khasis, Jaintias and the Garos are the main tribes that form the bulk of the population in the town. Besides these there are other communities like the Mizos, Nagas, Assamese, Bengalees and others who constitute the minority groups in the town. Shillong is considered to be one of the prominent educational centres of North Eastern India. At present there are 49 high schools in the Shillong Municipal area. These schools are managed by different agencies and termed as Government High Schools and Public schools administered by the State Government; Deficit and Adhoc schools managed by the Missionary and local bodies, some of whom get grants from the Government, and Private schools which are managed solely by individual men and women and in some cases by local bodies

The present study will be restricted to the following :-

- (1) A sample of 20 Secondary schools situated in different localities of the Shillong Municipal area.
- (2) Teachers involved would be drawn from the above mentioned schools.

.....27/-.....

- (3) For measuring Job Satisfaction of teachers, only 6 needs (related to Job Satisfaction) would be chosen for the final instrument.
- (4) For measuring the Leadership characteristics of the Heads/Principals a limited number (6 characteristics) of leadership characteristics were chosen for the final investigation.

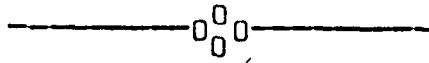


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C H A P T E R - II

2.00 : REVIEW OF RELATED LITERATURE

In this present chapter an attempt is made to provide a review of the literature relevant to this study. This review includes studies of Job Satisfaction conducted both abroad and in India.

While many studies have been carried out on job satisfaction and its constituents it may be pointed out that studies which concentrate on job satisfaction of teachers are fewer in number when compared to those involving Industrial workers. Many investigations used job satisfaction as an independent variable and tried to correlate different factors of workers or behaviour such as production, absenteeism, accident rate and turn over. Other investigations used job satisfaction as a dependent variable and tried to establish its relationship with personal variables such as age, sex, education, mental state, number of dependents, caste etc. In such studies a great many co-relational patterns have been obtained. The most commonly used tools for measuring job satisfaction are in the form of Questionnaires, Rating scales, Check lists and Interviews. In some studies the fulfilment of needs seem to be an important factor of job satisfaction. One of these which was conducted by Schaffer in 1953¹ seems to have a close bearing on this present study and therefore it will be subjected to more detailed review than the others.

¹ Robert H. Schaffer; Job Satisfaction as related to need satisfaction in work. Reported in Psychological Monograph 1953, Vol.67 No.14 (pp. 1-29).

2.01 : Studies Conducted Abroad :

2.01 (i) : Schaffer in his study was concerned with human needs in jobs/work and their satisfaction. He conceives of work as potential satisfier of both primary and secondary needs. He agrees with Hendricks² that work satisfaction consists of both primary and sublimative satisfaction. In his study Schaffer attempts to examine need satisfaction in work and its relationship to job adjustment or "Satisfáction".

A theory of Job Satisfaction : Outline of Schaffer's Study:

Work is seen as a special area of human behaviour and it is felt that whatever psychological mechanics operate to make people "satisfied" or "dissatisfied" in general will also operate in their sphere of work making them satisfied or dissatisfied with it.

States of tension or dissatisfaction are aroused when an individual is unable to satisfy some of his needs. In any individual in a given situation the amount of tension or dissatisfaction is determined by (a) the strength of his needs drives and (b) the extent to which he can perceive and utilise opportunities in the situation for the satisfaction of those needs.

²Hendricks, I. Work and pleasure principle, Psychological analysis; Quarterly 1943 12 pp. 311-329.

Thus to understand why an individual is dissatisfied with his job, one would necessarily have to know the extent of his needs which are not being satisfied and the relative strength of those needs. Stated formally this theory states, "overall job satisfaction will vary directly with the extent to which those needs of an individual which can be satisfied in a job are actually satisfied, the stronger the need, the more closely will job satisfaction depend upon its fulfilment".

In his study Schaffer developed his own Questionnaire and it was designed to measure three variables - (a) the strength of the needs selected, (b) the degree to which each of the needs was being satisfied in the individual's job and (c) the individual overall job satisfaction. Twelve of these needs were subjected to measurement. They are given below with their definitions.

(1) Recognition and Approbation : The need to have one's self, one's work and other things associated with one's self known and approved by others.

(2) Affection and Interpersonal Relationships : The need to have a feeling of acceptance by and belongingness with other people. The need to have people in work situation with whom these relationships may be formed.

(3) Mastery and Achievement : The need to perform satisfactorily according to one's standard or the need to perform well in accordance with the self perception of one's abilities.

- (4) Dominance : The need to have power over and control over others.
- (5) Social Welfare : The need to help others and to have one's efforts result in benefit to others.
- (6) Self expression : The need to have one's behaviour consistent with one's self concept.
- (7) Socio-economic status : The need to maintain one's self and one's family in accordance with certain group standards with respect to material matters.
- (8) Moral Value Scheme : The need to have one's behaviour consistent with some moral code or structure.
- (9) Dependence : The need to be controlled by others.
Dislike of responsibility for one's own behaviour.
- (10) Creativity and Challenge : The need for meeting new problems requiring initiative and inventiveness and for producing new and original works.
- (11) Economic Security : The need to feel assured of a continuing income. Unwillingness to take a chance in any financial matters.
- (12) Independence : The need to direct one's own behaviour rather than to be subjected to the direction of others.

The Sample : Schaffer distributed his Questionnaire through various agencies to individuals who were willing to co-operate. No effort was made at selecting the sample;

anonymity was ensured by providing for individuals who received the Questionnaire to mail it back to the author; thus there was no way of knowing on the part of the distributor as to who had and who had not responded. Considering the respondents, the author comments that while it was certainly typical of the work force, it could not be considered to be a random sample of such a population. He intentionally issued his Questionnaire to certain select groups as he wanted to issue it to people who had a certain measure of verbal ability. However he contends that the nature of the sample does not destroy the utility of his findings. The psychological factors he was investigating would appear universally and not in any single occupational level or group. A total of 72 individuals responded to the questionnaire.

From his study Schaffer reported that the strongest needs of his group were creativity, mastery and social welfare. It was also revealed that the measure of the extent to which each individual's most important needs were satisfied yielded the best prediction of his overall job satisfaction.

2.01 (ii) : Vroom (1962)³ stressed the importance of psychological need satisfaction in job satisfaction. Jobs which afford opportunities for individual judgment and initiative, chances for the development and use of aptitudes and permit some knowledge of results are more satisfying than those which do not provide for the fulfilment of these needs.

2.01 (iii) : Robert Hoppock⁴ conducted a survey on a sample of teachers: 500 individuals from 51 urban and rural communities were administered 4 attitude scales on job satisfaction. A combination of these yielded a measure of job satisfaction. Then a comparison was made between the 100 most satisfied and 100 most dissatisfied. Some of his findings revealed that the better adjusted teachers were more satisfied, the satisfied were more religious and felt more successful than the dissatisfied.

³V.H. Vroom, Ego-involvement, Job satisfaction and job performance, Personnel Psychology XV 1962 (pp.159-177)

⁴R. Hoppock 1935 in Job satisfaction as quoted in Job Satisfaction, Chapter IV. Industrial Psychology and its social foundations (ed) M.L. Blum, Harper Bros, Newyork 1949 (pp. 78-105)

Also the satisfied enjoyed better human relationships with supervisors and associates. Family influences and higher social status, were other features distinguishing the satisfied.

Some of the studies have concentrated on the factors associated with job satisfaction. These may be divided into two types - those which stress the characteristics of the individual and those which stress the characteristics of the job. Among the individual characteristics chosen by workers to study their relationship to job satisfaction mention may be made of the following: individual differences, age, education, sex, intelligence, occupational level etc. Important factors related to job satisfaction which have been mentioned in various studies include, organisation and management, immediate supervision, social environment, communication, security, monotony and pay.

Below are some of the studies of factors of job satisfaction carried out by different researchers :-

Individual Characteristics :

2.01 (iv) : Age - Divergent results were obtained in studies relating job satisfaction with age. Some find an increase or decrease in satisfaction with age; others find no relationship at all.

Herzberg and others⁵ proposed that there is a significant relationship between age and job satisfaction. Specifically they indicate that morale is high for young workers immediately after employment, drops sharply after the first few years and then begins to climb as workers continue on their job. They explain that early satisfaction is due to the newness of the job. Dissatisfaction sets in due to uncertainty, lack of seniority and security. Some recent findings however disagree with such trends.⁶

J. R. Block⁷ and others attempted to investigate correlates of job satisfaction among groups of disabled workers taking age as one of the variables. The study involved 249 physically disabled employees working in ABILITIES INC. ALBERSON, NEWYORK. Results of this study revealed that there is higher job satisfaction among older employees.

⁵F. Herzberg et al Job attitudes Review of Research and opinion : Pittsburg Psychological Service in Glenn P. Fournett et al Chapter XX in theory and practice of vocational Guidance (Ed) by B. Mupson and J. Hayes (pp 257-275).

⁶Glenn P. Fournett Ibid 5.

⁷J.R. Block et al, Personal and Guidance Journal 1964.42 (pp.805-810).

Korman⁸ reported that research trying to establish a relationship between age and job satisfaction, holding occupational level constant seems to indicate a generally positive relationship upto a certain age and a sharp decrease thereafter. Probably just after retirement an individual is given fewer prestigious tasks and hence tends to value his job less.

2.01 (v) Educational level : Volmer and Kinney⁹ found a negative relationship between educational level and job satisfaction.

A consistent trend of evidence indicates that with occupational level held constant there is a negative relationship between educational level and job satisfaction^{10,11}

2.01 (vi) Sex : Bryan and Boring¹² in a study of Ph.D. students in Psychology between the years 1921 and 1940 found most of them were satisfied - both men and women; women often reported that marriage and profession are in conflict.

Hulin and Smith¹³ contend that it is not sex per se

⁸ A.K. Korman, Job Satisfaction (Chapter VII) in Organisational Psychology. Prentice Hall Inc. New Jersey 1971

⁹ H.M. Volmer and J.A. Kinney; Age, Education and Job Satisfaction Personnel 1955 XXXII (pp 38-43)

¹⁰ R. J. Centres and H. Centril; Income, satisfaction and Income aspiration: Journal of Abnormal Social Psychology 1946; in A.K. Korman, Ibid 8.

¹¹ S.M. Klein and J.R. Maher; Education, level and satisfaction with pay: Personnel Psychology 1957, 3, 75-84 in A.K. Korman Ibid 8.

¹² Bryan and Boring; Job satisfaction, Researches of 1946-1947 reported by R. Hupoch et al in occupation, Vol.27, 1948 (pp 167-175).

¹³ Hulin and Smith in Job satisfaction: Issues and Problems, Glenn P. Fournet opcit 5

that is related to job satisfaction but the entire constellation of factors related to sex, i.e. pay, job level, promotional opportunities. Herzberg and others (1957) reported that the greater variability in the attitudes of women can be attributed to the multiple roles assumed by women when they take positions outside the home. It was further suggested that for job satisfaction, factors for men and women may be different.

Korman (1971)¹⁴ reported that there is no consistent evidence as to indicate that women are more satisfied with their jobs than men holding such factors as job and occupational level constant.

2.01 (vii) Occupational level : One of the most consistent findings in all research literature on job satisfaction is that the higher the level of job the greater is the satisfaction.^{15,16,17} Clearly a person who holds a high level job is more satisfied with it than a person who holds a low level position.

Super¹⁸ has also noted a significant but not linear

¹⁴A.K. Korman Ibid 8

¹⁵G.W. England and C. Stein. The occupational reference group - a neglected concept in employees' attitudes: Personal Psychology 1951, 14, 299-304 in A.K. Borman, Ibid 8

¹⁶F. Herzberg et-al; Job attitudes: Review of research and opinion, Pittsburg, Psychological Service of Pittsburg in A.K. Korman, ibid 8.

¹⁷V.Vroom, Work and Motivation; Wiley, Newyork 1964 in A.K. Korman, ibid 8

¹⁸D.E. Super, Occupational level and Job Satisfaction: Journal of Applied Psychology, 1939, 23.

relationship between satisfaction and occupational level with satisfaction greater at the higher levels. Centres and Cantril,¹⁹ also came to the same conclusion.

A study by Gwim, Veroff and Feld (1960)²⁰ found that people in high status jobs reported more ego satisfaction in their work than those holding lower positions.

Characteristics of the Job :

Studies in this area have been undertaken employing job factors as the independent variables and satisfaction as a dependent one. Some of these studies are commented on as below :-
2.01 (viii) Leadership and Supervision : Chase's studies²¹ which involved over 1800 teachers found that an important factor relating to satisfaction for teachers was the dynamic and stimulating leadership of the Principal. Teachers also emphasised helpfulness, opportunities for professional growth, respect and friendliness as administrative qualities which contributed to job satisfaction. Bidwell²² in a related study:-

¹⁹ R.J. Centres and H. Cantril Ibid 10

²⁰ G. Gwim, J. Veroff and S. Feld, American view their mental health; Basic Books, New York 1960 in Glenn P. Fournet Ibid 5.

²¹ Francis S. Chase, "Professional Leadership and Teacher Morale" Administrator's Note Book. Vol-I (March 1953 Pp 1-4) also his " Factors for satisfaction in teaching". Phi Delta Kappan Vol.33 (November 1951 Pp 127-132) in The New School Executive : A Theory of Administration (Ed) Thomas D. Sergiovanni and Fred D. Carver : Dodd, Mead and Company New York 1975.

²² Charles E. Bidwell, The Administrative Role and satisfaction in teaching Journal of Educational Sociology Vol. 29 September 1955 (Pp 41 - 47) In Thomas Sargiovanni and Fred D. Carver. Ibid 21.

found that teacher satisfaction depends upon teacher expectation of how administrators should behave and the extent to which these expectations were fulfilled.

L. Thomas (1956)²³ in his summary of Research carried out on job satisfaction pointed out that consideration received from superiors is first amongst the personal relations factors in Job Satisfaction, fair treatment is universally desired by all categories of workers and congenial relations with associates.

Zander and Quinn (1962)²⁴ in a study showed that job satisfaction is congruent with the immediate supervisor's personal interest and support for the worker.

There are a number of studies which show that the leadership of the 'democratic', 'considerate' or 'participative' type result in greater job satisfaction than the 'authorative', 'directive' or 'authoritarian' (Vroom 1964)²⁵. The simplest explanation of these findings

²³ L. Thomas; The Occupational structure and Education. Job Satisfaction (Chapter IX); Prentice Hall Inc. 1956 (pp 197-230)

²⁴ A. Zander and R. Quinn; The Social Environment and Mental Health Review of Past Research at the Institute of Social Research. Journal of Social Issues XVIII pp 48-66 in Job Satisfaction Issues and problems in Glear P. Fournet; ibid 5.

²⁵ Vroom (1964) as quoted in A.K. Korman; ibid 8.

is that considerate leadership leads to greater satisfaction.

2.02 : Studies of Job Satisfaction Conducted In India :

Among the studies conducted in India mention may be made of the following :-

2.02 (i) : Anjaneyelu (1968)²⁶ studied Job Satisfaction of teachers in some secondary schools of Andhra Pradesh. He reports that teachers are not satisfied with their job due to: (i) inadequate salary, (ii) less academic freedom and heavy work load. While these were the general causes of dissatisfaction, there were some special causes in different types of schools. In Committee schools the reasons were, (i) lack of security, (ii) rigid and orthodox service conditions and (iii) too much domination by management. In Mission schools, however, the reasons were, (i) low pupil standards, (ii) lack of parental co-operation, (iii) lack of prospects in the job. In local board schools the reasons were, (i) interference by politicians, (ii) lack of suitable accommodation. In Government schools, (i) rigid service conditions, (ii) lack of parental co-operation and (iii) frequent transfer, were the causes.

He also found that the amount of satisfaction differed

²⁶B.S.K. Anjaneyelu; A study of Job Satisfaction in Secondary School teachers and its impact on the education of pupils with special reference to the state of Andhra Pradesh; unpublished Ph.D Thesis Edn. U.S.U. 1968 in Second Survey of Research in Education by M.B. Buch(c) 1979; Society For Educational Research and Development; Baroda, India (p 458,462).

when male teachers were compared with women teachers due to sensitivity in social relationships and academic conditions; satisfied teachers were found to be favourable to students, dissatisfied teachers were not.

2.02 (ii) : Lavinga (1974)²⁷ in a study of job satisfaction among school teachers reported the following major findings:-

(a) Primary school teachers were more satisfied than Secondary school teachers. (b) Female teachers were more satisfied than male teachers. (c) Job efficiency was positively correlated with job satisfaction. (d) Young teachers in the age group of 20 to 24 years were more satisfied in both the groups of primary and secondary school teachers. (e) Unmarried teachers were more satisfied than the married ones.

2.02 (iii) : Singh (1974)²⁸ conducted a study on teachers' values and their relationship with teachers' attitudes and Job satisfaction. Some of his findings revealed that (a) teachers were moderately satisfied except with physical facilities, economic benefits and administration. (b) Female and unmarried teachers were more satisfied than male and married ones.

²⁷ K.U. Lavinga; A Study of Job Satisfaction Among School Teachers. Unpublished Ph.D. Thesis, Edn. Gujarat Univ. 1974 in Second Survey of Research in Education, by M.B. Buch (c) 1979, Society for Educational Research and Development, Baroda, India (p 438).

²⁸ H.L. Singh; Measurement of Teacher Values And Their Relationship With Teacher Attitudes And Job Satisfaction; Unpublished Ph.D. Thesis, Edn. B.H.U. (1974) in Second Survey of Research in Education, M.B. Buch; ibid 27. (pp 448-449).

2.02 (iv) : Uniyal (1976)²⁹ who conducted a study on 'Job Motivation And Satisfaction of Education' found that highly satisfied teachers displayed higher need for achievement than the low satisfied group. His findings also revealed that Government school teachers were more satisfied than the private school teachers.

2.02 (v) : In a study of Teacher Pupil Relationship in Higher Secondary Schools in Delhi by S.P. Anand (1971)³⁰ the causes of dissatisfaction among teachers were categorised under the following heads: (a) low income, (b) low status, (c) bleak future and (d) poor service conditions when compared with other professions.

2.02 (vi) : Lakdawala (1977)³¹ in a study of women teachers of Secondary Schools in Bombay found that only 41% teachers were fully satisfied with their job. The reasons for dissatisfaction were mostly due to crowded classes and heavy work load.

²⁹ M.P. Uniyal; 'Job Motivation And Satisfaction Of Education', Unpublished Ph.D Thesis, Edn. All. University 1976 in Second Survey of Research in Education (Ed) M.B. Buch ibid 26 (p.502)

³⁰ S.P. Anand; Job Satisfaction Chapter VII From a Study of Higher Secondary Schools in Delhi; Ph.D.Thesis; Delhi U University 1971; (pp 416-445).

* ³¹ U.J. Lakdawala; The Professional Growth Of Women Teachers of Secondary Schools of Greater Bombay; SNDT Bombay 1977 in Third Survey of Research in Education 1979 - 1983 (c) NCERT, 1986 (p 817-818)

2.02 (vii) : Gupta (1980)³² conducted a study on job satisfaction at three levels of teaching which included 765 male teachers from primary schools, secondary schools and colleges of Meerut Division. Some of his findings are, (a) Marital status, age and teaching experience were not associated significantly with the job satisfaction of secondary school teachers, (b) primary school teachers were significantly less satisfied than Secondary and College teachers, (c) Secondary School teachers and College teachers were almost equally satisfied with their job.

2.02 (viii) : Pormal (1980)³³ administered a Job Satisfaction Questionnaire to find out the personality correlates of some job satisfied Higher Secondary School teachers. His study revealed that (a) age appears to exert an adverse impact on Job Satisfaction, (b) sex produces differences in the level of job satisfaction, (c) a negative relationship existed between length of service and the level of job satisfaction, and (d) teachers of Government schools were more satisfied than those in privately managed ones.

³² S. P. Gupta; A Study Of Job Satisfaction At Three Levels Of Teaching; Unpublished Ph.D. Thesis Edn. Meerut Univ 1980 in Third Survey of Research in Education by M.B. Buch; 1986 opcit 31 (pp 809-810)

³³ N.K. Pormal; Personality Correlates Of Job Satisfied Higher Secondary School Teachers; Unpublished Ph.D. Thesis, Psychology, Agra University 1980 in Third Survey of Research in Education; ibid 31 (pp 831-832).

2.02 (ix) : Reddy (1980)³⁴ developed a job satisfaction inventory to find out the effect of type of management and sex on job satisfaction of teachers. Two hundred forty teachers working in schools controlled by 4 types of management served as subject for his study. On the basis of the results obtained in his study Reddy draws the following conclusions : Teachers were generally satisfied with their job. Men as well as women teachers working in private schools were more satisfied than those working under other types of management. Women teachers in Government schools and Municipal schools were more satisfied than their male counterparts. In the case of private and Zilla Parishad Schools there was no significant difference between the levels of job satisfaction of men and women teachers.

2.02 (x) : Rao (1981)³⁵ who conducted a study with some primary school teachers found that there was no difference between the female and the male teachers with regard to their job satisfaction. However, the male teachers were

³⁴ A.V.R. Reddy; Effect Of Type Of Management And Sex On Job Satisfaction Of Teachers. S.V. University; Tirupathi in Quest in Education; Vol.XVII No.4; October 1980; Indian Council of Basic Education, Bombay 1980 (p 460).

³⁵ S.N. Rao; A Psychological Study Of Work Adjustment And Teaching Success Of Primary School Teachers; S.V. University 1981; N C E R T (Finance) in Third Survey of Research in Education (Ed); M.B. Buch; ibid 31 (p 835).

more intrinsically motivated. It was also revealed that the length of service was ^{not} related to job satisfaction;

2.02 (xi) : Sharma and Gupta (1983)³⁶ in a study attempted to find out the relationship between organisational climate and teachers' job satisfaction by using a job satisfaction scale developed and standardised by S.P. Gupta and J. Srivastava. The sample involved male and female teachers from 7 intermediate Colleges of Moradabad City.

The findings revealed that highly satisfied teachers perceive the organisational climate of their institution as characterised by high level of support and satisfaction, high thrust, high democracy and freedom, high academic emphasis and high discipline and control. On the other hand least satisfied teachers perceive organisational climate in their institution as characterised by high levels of disharmony, high authoritarianism and lack of facilities.

These findings indicate that institutions having more support and satisfaction, emphasis on goal achievement in the right direction, democratic ways of functioning of the principal, emphasis on academic activities produce

³⁶ B. Sharma and S. Gupta; A Study Of The Relationship Between Organisational Climate And Teachers' Job Satisfaction: Journal of Educational Research and Extension Volume 19 Number 3; January 1983; Sri Rama Krishna Mission Vidyalaya College of Education; Tamilnadu (pp 145 - 149).

more job satisfaction in teachers, while institutions having more conflicts and lacking cordial relationships among teachers, authoritarian attitude of Principals and lack of facilities produce dissatisfaction among teachers.

2.02 (xii) : Shukla³⁷ (1986) attempted to study the relationship between administrative effectiveness and job satisfaction. His sample consisted of 120 Basic school teachers of Sitapur (U.P.). In one of the findings the investigator reported that administrative effectiveness of the educational leader seems to be positively correlated to job satisfaction of teachers.

2.02 (xiii) : A study of job satisfaction of Secondary School Teachers by Falkhiwala (1959)³⁸ draws a general conclusion that a large percentage of teachers (between 65 and 80) in all types of schools (aided, unaided and unrecognised) were dissatisfied with their job for one reason or another.

³⁷ P.C. Shukla : A Study Of Administrative Effectiveness : Its Relationship With Teachers' Attitude: Job Satisfaction And Morale, Journal of Research And Extension, Vol.23 No.1 July 1986. Sri Rama Krishna Vidyalaya College Of Education, Tamil Nadu (Pp 145-149)

³⁸ N.A. Falkhiwala : A Study Of One Hundred Cases Of Secondary Teachers regarding Their Job Satisfaction. M.Ed. Dissertation Bombay 1959 in The Third Indian Year Book Of Education by S.B. Adaval, Educational Research, N.C.E.R.T. New Delhi 1968 (p. 140)

2.02 (xiv) : An investigation undertaken by Sharma (1974)³⁹ on organisational climate of Secondary schools of Rajasthan with the aim of investigating the relationship between organisational climate and teachers' satisfaction revealed that a significant positive correlation was perceived between teachers' satisfaction and school climate involving factors such as leadership behaviour of the principal and headmaster's effectiveness.

2.02 (xv) : Darji (1975)⁴⁰ conducted a study on leadership behaviour and its correlates in some Secondary schools of Panchmahal District. The study aimed at identifying leadership behaviour patterns of principals, measuring teachers' morale in the sampled schools and studying the inter-relationships among leadership behaviour of the principal, organisational climate, teachers' morale and etc.

The study revealed that leadership behaviour dimensions and patterns were found to be significantly related to variables such as organisational climate, staff morale and academic motivation.

³⁹M.L. Sharma : An Investigation Into Organisational Climate Of Secondary Schools Of Rajasthan in Second Survey of Research in Education by M.B. Buch, Ibid 26 (p.492)

⁴⁰D.K. Darji : A Study Of Leadership Behaviour And Its Correlates In the Secondary Schools Of Panchmahal District. Ph.D. Dissertation, Education, M.S.U. 1975 in Second Survey of Research in Education by M.B. Buch. Ibid 26 (p.466).

2.02 (xvi) : Kolte (1978)⁴¹ conducted a study on job satisfaction of Primary school teachers which is a verification of the generality of the Two-Factor Theory referred to earlier in Chapter II. The main aims of the study were, to identify the factors which are responsible for both the teachers' satisfaction and dissatisfaction and to test the validity of Herzberg's two factor theory of Job Satisfaction. The study was conducted on Primary school teachers from 6 Panchayat Samities in Buldana District. Respondents were asked to describe one incident when they felt exceptionally good about their job and another when they felt exceptionally bad about it. In all, 78 incidents about good feeling and 70 incidents about bad feeling about the job were collected.

The study yielded the following findings:

- (1) Achievement was responsible for the feeling of satisfaction in about 42 of the collected satisfaction incidents;
- (2) Thirty good incidents revealed recognition as a factor for the feeling of satisfaction from the job.
- (3) Advancement emerged as a satisfier in 18 of the incidents collected in connection with the feeling of satisfaction.

⁴¹N.V. Kolte : Job Satisfaction Of Primary School Teachers : A Test Of The Generality of the Two-Factor Theory. National Institute of Rural Development, Hyderabad, 1978, in The Third Survey of Research in Education, by M.B. Buch. Ibid 31. (pp 815-816).

On the whole Hergberg's dual factor theory was not supported in toto by the study.

2.02 (xvii) : Saxena (1981)⁴² who conducted a study on Administrative leadership styles and teachers' morale involved 10 principals and 150 teachers of some colleges in Gopeshwar, Uttar Pradesh in his investigation. In his study the principal's style in organising and executing various programmes and policies and his pattern of behaviour in dealing with teachers with a sense of regard for his position, status and role has been treated as the Principal's style. Morale referred to the professional interest and enthusiasm that a person displayed towards the achievement of individual and group goals in a given job situation. Some of the findings of the study were :-

- (1) High democratic style of the administrator leads to high morale of teachers.
- (2) High authoritarian style results in low morale of teachers.
- (3) A Laissez faire style has a tendency to develop low morale rather than high morale in teachers.

⁴²K.K. Saxena : Administrative Leadership Styles And Teachers' Morale. Gopeshwar, U.P. in The Educational Review, November 1989, Vol. XCV-No. III Madras (pp 191-193)

2.02 (xviii) : Another study on Leadership Behaviour was conducted by Naik (1982)⁴³ in some Secondary schools of South Gujarat. Naik who studied the relationship between leadership behaviour of Headmasters and teachers' morale in the schools visited by him reported the following findings :-

- (1) Integration, (dependent on the leadership behaviour dimensions) was significantly related to material and equipment, special services and to supervisory relationships.
- (2) There was no significant relationship between 12 dimensions of Leadership Behaviour involved in his study and the experience of the Headmaster.
- (3) Teachers' morale had no significant relationship with the type of school, location of school and size of the school.

To summarise the review of literature related to this study it may be concluded that, as Schaffer has suggested, Job Satisfaction is concerned with the satisfaction of important needs related to a job and the extent of the satisfaction of such needs. A number of studies have shown that certain factors such as intensity, leadership, the salary, the work environment, experience and qualification of teachers, the management of schools, the sex distribution

⁴³D.G. Naik : An Inquiry Into The Relationship Between Leadership Behaviour Of Secondary School Headmasters And Teachers' Morale. Ph.D. Thesis (Edn.) . S.G.U. 1982 in Third Survey Of Research In Education, by N.B. Buch, Ibid 31 (pp 916-917).

of teachers in a school, religious affiliations of teachers, the age of teachers etc. may be involved in this satisfaction of needs associated with the job of teaching in a school. It is with some of these factors which were considered in framing hypothesis that this study will be mainly concerned, especially in the construction of tools to assess job satisfaction.

To fulfil the objectives mentioned in Chapter I and, in view of the above findings in related studies, the following hypotheses were tentatively framed to aid the prosecution of further stages in the study.

2.03 : HYPOTHESES :

- I. Significant differences in job satisfaction may be identifiable between groups of teachers belonging to different varieties of management (Government, Deficit etc.).
- II. Differences in job satisfaction may be identifiable between Male and Female teachers in the sample under investigation.
- III. Significant differences in job satisfaction would be identifiable between teachers having different religious affiliations (Christians, Hindu and others).
- IV. Significant differences in job satisfaction would be identifiable between groups of teachers categorised under different age groups/levels.

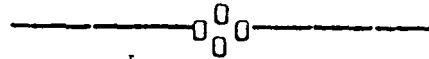
- V. Differences may be identifiable in job satisfaction between teachers of different levels of experience (in terms of duration of service).
- VI. There would be a positive relationship between job satisfaction of teachers and an assessment of leadership characteristics of Heads/Principals (as perceived by their subordinate teachers).

C H A P T E R - I I I

3.00 : METHODOLOGY

C O N T E N T S

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C H A P T E R - III

METHODOLOGY

This chapter deals with the methods and procedures followed in the present investigation. The present study was conceived with an aim of studying job satisfaction of school teachers and their perceptions of the leadership characteristics of their Heads/Principals. In discussing the methods employed by this study, ^{The following} tasks have been dealt with in this chapter :-

1. Selection of a representative sample.
2. Preparation of the tools.
3. Procedure for data collection and administration of the tools.

3.01 : Selection of a representative sample :

The sample selected for this study comprised of 20 Secondary Schools which were selected for investigation, out of a total of 49 Secondary Schools (Deficit, Private, Government and Ad-hoc) listed in the Shillong Municipal area.

In choosing the sample a list of schools and their locations was obtained from the office of the Inspector of Schools, Mawkhar, Shillong. The schools were re-arranged in lists in accordance with the different localities in which they were situated and further categorisation was carried out in terms of their management (Deficit, Private, Adhoc and etc.).

Table I below shows the distribution of 49 Secondary Schools in Shillong categorised according to their locations and management.

TABLE - I

Distribution of Secondary Schools in Shillong
With their locations and management

LOCALITY	M A N A G E M E N T				Total
	Deficit	Ad-hoc	Private	Government	
Laitumkhrah	5	2	4	0	11
Dhankheti					
Laban					
Lumpering	6	3	0	1 (Public)	10
Mawkhar	2	1	0	0	3
Wahingdoh					
Jaiaw	3	2	0	1	6
Mission Compound					
Malki	1	3	2	0	6
I.G.P.					
Police Bazar	4	1	0	1	6
Polo	0	3	0	0	3
Pynthor					
Mawprem					
Qualapati	1	2	1	0	4
Total	22	17	7	3	49

In selecting the 20 schools for this sample an attempt was made to select the schools in such a way that the different geographic locations/managements etc. are represented in suitable proportions in the sample. The final list of 20 schools selected for the investigation was drawn without bias so as to represent adequately the different geographical localities of Shillong and also other characteristics such as, system of education (Boys'/Girls'/co-education) and type of management (Government/Deficit etc.).

Table II presented below provides a break up of the sample chosen for investigation.

TABLE - II
Distribution of 20 schools selected for the sample

LOCALITY	M A N A G E M E N T				Total
	Deficit	Ad-hoc	Private	Government	
Laitumkhrach	2	1	0	3	6
Dhankheti					
Laban Lumparing	2	1	1	0	4
Mawkhar	1	0	0	0	1
Jaiaw					
Mission Compound	1	1	1	0	3
Malki					
I.G.P.	0	1	0	1	2
Police Bazar	1	0	1	0	2
Mawprem	1	1	0	0	2
Total	8	5	3	4	20

A more comprehensive list of the schools chosen for the sample is provided in the Appendix "A"

3.02 : PREPARATION OF THE TOOLS :

As this study's most important data was concerned with measures of Job Satisfaction and the perception of leadership qualities of Heads/Principals by the teachers in the sample, this chapter will be devoted to the steps involved in the preparation of the tools for these measures which were later administered in this investigation. The present study was conceived with the aim of studying job satisfaction of Secondary School teachers and its association, if any, with perceptions of leadership characteristics of the Heads/Principals. In order to fulfil the objectives of the study to verify the hypotheses the following tools were constructed by the investigator.

- (1) A Job Satisfaction Scale.
- (2) Rating Scales to assess leadership characteristics of Heads/Principals as perceived by teachers working under them.

3.02 (a) : Job Satisfaction Scale :

As mentioned in Chapter II there has been a vast body of research which seeks to discover the factors associated with job satisfaction. Most of these studies and surveys seem to concentrate in measuring the needs in one dimension only, i.e. the extent to which the needs are satisfied. For example, an investigator may seek to obtain responses from certain

groups of people/workers about their satisfaction or dissatisfaction relating to certain matters such as, pay, work environment, supervision etc. Assuming that all these factors are of equal importance the investigator analyses the results based on the proportions expressing satisfaction or dissatisfaction. Probably only those factors in which a majority (large proportions) expressed dissatisfaction are subjected to examination for remedial action. This assumption fails to give the true picture involved in job satisfaction or dissatisfaction. To support this assertion a hypothetical example may be cited. If in a certain survey 60% of a sample expressed dissatisfaction about income and security and the same proportion (60% also expressed dissatisfaction with the length of the school hours, it cannot be concluded that these two are of equal importance. It is therefore important to know not only how strong - for or against - an individual feels about a certain issue but also how important he considers the issue to be. It may be that this was the consideration which may have influenced Schaffer¹ in the construction of his Job Satisfaction Scale. This scale was based on the theoretical conceptualisation of job satisfaction that "overall job satisfaction will vary directly with the extent to which

¹R.H. Schaffer : Job Satisfaction As Related To Need Satisfaction In Work : Psychological Monographs 1953; Vol.67 No.14 (Pp 1-29).

those needs of the individual which can be satisfied in job are actually satisfied: the stronger the need the more closely will job satisfaction depend upon its fulfilment".

Construction of the Job Satisfaction Scale :

This study made an attempt to measure the needs related to job satisfaction with respect to both their fulfilment and importance. The procedure involved in the construction of the instrument for the measurement of job satisfaction is described in the following paragraphs.

A review of various investigations carried out in the field of Job Satisfaction enabled the investigator to select ten factors which many studies had mentioned as being related to, or determining, Job Satisfaction. These factors which appeared to be frequently mentioned in most of the studies under review were listed in a sheet of paper in the following order :

- (a) Prestige and Status
- (b) Recognition and Approbation
- (c) Interpersonal relationships
- (d) Mastery and Achievement
- (e) Income (Salary) and Security
- (f) Leadership and Supervision
- (g) Suitable/Satisfactory Work Environment
- (h) Opportunities for Promotion and Advancement
- (i) Independence
- (j) Authority and Control.

Each of the above listed needs were also described in terms of their specifications i.e. brief descriptions of how these needs may be fulfilled or manifested. Accompanying these listed needs a paired comparison Questionnaire was framed in which each of these ten needs were compared with the other and respondents were required to give their own judgment as to which need was considered more important by them in each comparison*.

These lists and Paired Comparison Questionnaire were then given for an initial try out to 23 school teachers of Sacred Heart Girls' High School, Shillong. After this the lists were then distributed to the teachers of the following Secondary schools :-

1. St. Dominic High School
2. Nongkwar High School
3. Sacred Heart Boys' High School
4. Lady Keane Girls' High School
5. Church of God High School, Mawlai, Shillong.

Each Questionnaire is accompanied by a letter addressed to the teachers requesting them for their cooperation and to give their judgment when each of the ten needs were compared with the others. The schedule required 45 comparisons to be made and altogether 45 judgments had to be indicated. In

* Copy attached as Appendix 'B'

the schools listed above over 100 copies of the Questionnaire were distributed but only 75 completed sheets were returned back to the investigator.

The needs in the paired comparison judgments of 75 teachers were then subjected to scaling procedures to assess their popularity or salience. The procedure followed in assigning of scale values was adopted from the method as suggested by Edwards².

In this method the frequency of the number of times each need is judged more important than any other of the nine it is compared with is indicated initially in a matrix as in Table III(a) below.

TABLE - III (a)

'F' MATRIX

	A	B	C	D	E	F	G	H	I	J	Total
A		35	28	33	46	30	33	35	33	27	300
B	40		31	51	61	35	33	39	32	33	355
C	47	44		45	53	27	38	38	33	20	345
D	42	24	30		57	31	42	28	36	19	309
E	29	14	22	18		15	30	26	19	11	184
F	45	40	48	44	60		48	33	33	20	371
G	42	42	37	33	45	27		31	23	17	297
H	40	36	37	47	49	42	44		18	22	335
I	42	43	42	39	56	42	52	57		31	404
J	48	42	55	56	64	55	58	53	44		475
Total	375	320	330	366	491	304	378	340	271	200	3375

²A.L. Edwards, Techniques of Attitude Scale Construction, Appleton Century Crafts, Inc. New York 1957 (Pp 19-52)

The frequencies shown in Table III(a) were then converted to proportions (percentages) of the total judgments possible and then these were indicated in a 'P' Matrix as in Table III(b). From this, Table III(c), the representation of the 'Z' Matrix giving the normal deviates corresponding to the proportions represented in Table III(b), was constructed. For example, in Table III(b) the value of .467 in the second column and first row represents the proportion of judgments in favour of B when compared with A.

TABLE - III (b)

'P' Matrix

	A	B	C	D	E	F	G	H	I	J
A	-	.467	.373	.440	.613	.400	.440	.467	.440	.360
B	.533	-	.413	.680	.813	.467	.440	.520	.427	.440
C	.627	.587	-	.600	.707	.360	.507	.507	.440	.267
D	.560	.320	.400	-	.760	.413	.560	.373	.480	.253
E	.387	.187	.293	.240	-	.200	.400	.347	.253	.147
F	.600	.533	.640	.587	.800	-	.640	.440	.440	.267
G	.560	.560	.493	.440	.600	.360	-	.413	.307	.227
H	.533	.480	.493	.627	.653	.560	.587	-	.240	.293
I	.560	.573	.560	.520	.747	.560	.693	.760	-	.413
J	.640	.560	.733	.747	.853	.733	.773	.707	.587	-

These proportions can be converted by reference to the 'Z' tables in Allen and Edward's book (referred to earlier)³ into scale values which represent the deviations

³Ibid 2 p.246

from the Mean in a normal distribution. This value, (-.083), is indicated in the appropriate cell in Table III(c) below (2nd column, 1st row), when need B was compared with need A

TABLE - III (c)

'Z' Matrix

A	A	B	C	D	E	F	G	H	I	J
A	-	-.083	-.324	-.151	.287	-.253	-.151	-.083	-.181	.358
B	.083	-	-.220	.468	.889	-.083	-.151	.050	-.184	.151
C	.324	.220	-	.253	.545	-.358	.018	.018	-.151	.622
D	.151	-.468	-.253	-	.706	-.220	.151	-.324	-.050	.665
E	-.287	-.889	-.545	-.706	-	-.842	-.253	-.393	-.665	-1.049
F	.253	.083	.378	.220	.842	-	.358	-.151	-.151	-.622
G	.151	.151	-.018	-.151	.253	-.358	-	-.220	-.504	-.749
H	.083	-.055	-.018	.324	.393	.151	.220	-	-.706	-.545
I	.151	.184	.151	.050	.665	.151	.504	.706	-	-.220
J	.358	.151	.622	.665	1.049	.622	.749	.545	.220	-
Total	1.267	-.701	-.247	.972	5.629	-1.19	1.445	-.148	-2.342	-4.981
Mean	.127	-.070	-.025	.097	.563	-.119	.145	-.015	-.234	-.498
Mean + .498	.625	.428	.473	.595	1.061	.379	.643	.483	.264	1.000
	1.63	1.43	1.47	1.58	2.06	1.38	1.64	1.48	1.26	1.00

The determination of these scale values enables the application of an internal consistency check. This check involves determining how well the observed (obtained) or empirical 'P' values agree with those to be expected in terms of the derived scale values. The first step in the process is to obtain a 'Z' matrix representing the normal deviates corresponding to the scale separation of the statements. This is shown in Table III(d) on the following page.

TABLE-III(d)

Z Matrix

	.000 J	.264 I	.379 F	.428 B	.473 C	.483 H	.595 D	.625 A	.643 G	1.061 E
J										
I	-.264									
F	-.379	-.115								
B	-.428	-.164	-.049							
C	-.473	-.209	-.094	-.045						
H	-.483	-.219	-.104	-.055	-.010					
D	-.595	-.331	-.216	-.167	-.122	-.112				
A	-.625	-.361	-.246	-.197	-.152	-.142	-.030			
G	-.643	-.379	-.264	-.215	-.170	-.160	-.048	-.018		
E	-1.061	-.797	-.682	-.633	-.588	-.578	-.466	-.436	-.418	

...../99/.....

By referring to the appropriate tables⁴ these Z^i values can be transformed into proportions (percentages) to obtain the P^i values corresponding to the theoretical normal deviates obtained in Table III(d). These corresponding theoretical proportions are shown in Table:III(e).

Subtraction of P^i entries obtained in Table III(e) from the original P entries obtained in Table III(b) yields the data required for the compilation of Table III(f)

TABLE - III(e)

P^i Values

	J	I	F	B	C	H	D	A	G	E
J										
I	.396									
F	.352	.454								
B	.334	.435	.481							
C	.318	.417	.463	.482						
H	.315	.413	.458	.478	.496					
D	.276	.370	.415	.434	.452	.456				
A	.266	.359	.403	.422	.440	.443	.488			
G	.260	.352	.396	.415	.432	.436	.481	.493		
E	.144	.213	.248	.263	.278	.282	.321	.331	.338	

⁴Ibid Page 65

TABLE - III(f)

Discrepancies Between Observed And Theoretical Proportions
($P_{ij} - P'_{ij}$)

∟The compilation of this Table facilitates the Calculation of an Internal Consistency Check in terms of the A.D. (Average Discrepancy) between the obtained and the theoretical proportions of judgments.∟

	J	I	F	B	C	H	D	A	G	E
J										
I	.017									
F	-.085	-.014								
B	.106	-.008	-.014							
C	-.051	.023	-.103	.105						
H	-.022	-.173	.102	.002	-.003					
D	-.023	.110	-.002	-.114	-.052	-.083				
A	.094	.081	.003	.045	-.067	.024	-.048			
G	-.033	-.045	-.036	.145	.061	-.019	-.041	.067		
E	.003	.040	-.048	-.076	.015	.069	-.081	.056	.062	
TOTAL	.006	.014	-.098	.107	-.046	.019	-.170	.123	.062	

$$\begin{aligned}
 \sum (p_{ij} - p'_{ij}) &= .117 \\
 \text{A.D. of discrepancies} &= \frac{\sum P_{ij} - P'_{ij}}{n(n-1)/2} = \frac{.117}{10(9)/2} \\
 &= \frac{.117}{45} = .0026 = .003
 \end{aligned}$$

The above calculation of A.D. from Table III(f) represents the discrepancies between the empirical or observed proportions and the theoretical (or expected) proportions.

*This obtained value of discrepancy is considerably smaller than those reported by Edwards and hence it may be evidence of the fact that judges, in making their judgments in the Paired Comparisons, did display an adequate degree of Consistency.

The data were next subjected to a χ^2 test of significance for the discrepancies between observed and theoretical proportions obtained in Paired Comparison judgments. This test was developed by Mosteller and is based upon the transformation of both the observed P values and the theoretical P' values into their inverse sine values and then to test whether there is accord between the theoretical and observed proportions. It consists in transforming the P and P' values into their corresponding θ and θ' values (the angular transformation of percentages into degree)⁵.

Then, using the formula $\chi^2 = \frac{n(\theta - \theta')^2}{821/N}$ ⁶, the value of χ^2 can be evaluated by reference to the table for an appropriate number of degree of freedom (df), this being calculated by the formula $df = \frac{(n-1)(n-2)}{2}$ where n = the number of stimuli. These transformations are shown in Table III(g) and Table III(h) respectively and the calculation of the χ^2 test of significance under Table III(i).

* P 40 Edward's Reference

⁵ Ibid 2 Table II Page 248

⁶ Ibid 2 Page 40

TABLE - III(a)

θ Values

	J	I	F	B	C	H	D	A	G	E
J	-									
I	39.99	-								
F	31.11	41.55	-							
B	41.55	40.80	43.11	-						
C	31.11	41.55	35.87	50.01	-					
H	32.77	29.33	48.45	43.85	44.60	-				
D	30.20	43.85	39.99	34.45	39.23	37.64	-			
A	36.87	41.55	39.23	43.11	37.64	43.11	41.55	-		
G	28.45	33.65	36.87	48.45	44.60	39.99	41.55	48.45	-	
E	22.50	30.20	26.56	25.62	32.77	36.09	29.33	38.47	39.23	-

TABLE - III(h)

θ Values

	J	I	F	B	C	H	D	A	G	E
J	-									
I	39.00	-								
F	36.39	42.36	-							
B	35.30	41.27	43.91	-						
C	34.33	40.22	42.88	43.97	-					
H	34.14	39.99	42.59	43.74	44.77	-				
D	31.69	37.47	40.11	41.21	42.25	42.48	-			
A	31.05	36.81	39.41	40.51	41.55	41.73	44.31	-		
G	30.66	36.39	39.00	40.11	41.09	41.32	43.91	44.60	-	
E	22.30	29.87	29.87	30.85	31.82	32.08	34.51	35.12	35.55	-

TABLE III(1)
($\theta - \theta^j$) Values

	J	I	F	B	C	H	D	A	G	E
J	-									
I	.99	-								
F	-5.28	-.81	-							
B	6.25	-.47	-.80	-						
C	-3.22	1.33	-6.01	6.04	-					
H	-1.37	-10.66	5.86	0.11	-.17	-				
D	-1.49	6.38	-.12	-6.76	-3.02	-4.84	-			
A	5.82	4.74	-.18	2.60	-3.91	1.38	-2.76	-		
G	-2.21	-2.74	-2.13	8.34	3.51	-1.33	-2.36	3.85	-	
E	.20	.33	-3.31	-5.23	.95	4.01	-5.18	3.35	3.68	-

($\theta - \theta^j$)² Values

	J	I	F	B	C	H	D	A	G	E
J	-									
I	.98	-								
F	27.88	.66	-							
B	39.06	.22	.64	-						
C	10.37	1.77	36.12	36.48	-					
H	1.88	113.64	34.34	.01	.03	-				
D	2.22	40.70	.01	45.70	9.12	23.43	-			
A	33.87	22.47	.03	6.76	15.29	1.90	7.62	-		
G	4.88	7.51	4.54	69.56	12.32	1.77	5.57	14.82	-	
E	.04	.11	10.96	27.35	.90	16.08	26.83	11.22	13.54	-
	121.18	187.08	86.64	185.86	37.66	43.18	40.02	26.04	13.54	= 741.2

$\sum (\theta - \theta^j)^2 = 741.2$

.....71/-.....

$$\begin{aligned}\chi^2 &= \frac{\sum (O_i - E_i)^2}{821/N} \quad (\text{where } \sigma^2 = \frac{821}{N}; \text{ and } N = \text{the number of judges}) \\ &= \frac{1.99^2 + \dots + (3.68)^2}{821/N} \\ &= \frac{741.20}{821/75} \\ &= \frac{741.2}{10.95} \\ &= 67.69\end{aligned}$$

$$df = \frac{(n-1)(n-2)}{2} = \frac{9 \times 8}{2} = 36$$

The χ^2 of 67.69 is significant at .01 level

$\chi^2_{.01}$ for 36 df = 58.80

This obtained value of χ^2 lends further support to the assertion that the previously obtained measure of discrepancy was of a sufficiently low degree to maintain that the judges in Paired Comparison judgments were consistent in their judgments.

It was decided to use in the final instrument - to measure Job Satisfaction - which took cognisance of both the satisfaction derived from each need and the importance attached to it, the six most consistently judged needs out of the ten submitted for Paired Comparison judgments. This choice, it was presumed, would meet the requirement of a data collection device which would ^{be} as short as possible without sacrificing efficiency. Thus it was decided to include only the following six needs in the final instrument

.....72/-.....

which was designed to assess job-satisfaction. These are also considered to be amongst the most important of the ten needs submitted for judgments

1. Income (Salary) and Security (E)
2. Suitable satisfactory work environment (G)
3. Prestige and Status (A)
4. Mastery and Achievement (D)
5. Opportunities for Promotion and Advancement (H)
6. Interpersonal relations (C)

Construction of the Job Satisfaction Scale
(Second Stage)

In the second phase, the ten needs (which were submitted for paired comparison judgments) were used in framing 50 statements (five for each of the ten needs). The statements expressed both the positive and negative attitudes towards job satisfaction in a teacher's life. A copy of these statements is attached in the Appendix*. Further judgments were obtained about these statements from 50 school teachers of the following High Schools of Shillong.

1. St. Mary's High School, Shillong
2. Buddha Vidya Niketan High School, Shillong
3. Anath Ashram High School, Shillong
4. Sacred Heart Girls' High School, Shillong
5. Gandhi Buniyadi High School, Shillong

* Appendix 'C'

The teachers were asked to judge on a five-point scale, the degree of satisfaction that each statement expressed for the job. A rating of '1' indicated extreme satisfaction while a rating of 5, extreme dissatisfaction. The point '3', indicated a neutral attitude. After these statements were being judged the "Q" value of each statement was computed. Only those statements with lowest "Q" values were taken into consideration. Out of these, twelve statements - two representing each need - were chosen for the final instrument for measuring Job Satisfaction. The fact that these statements occupied extreme positions on the five point scale and that the "Q" values were relatively small were amongst the criteria considered in selecting them for the final instrument. Thus, it can be asserted with confidence that the statements selected are judged generally to represent an attitude of satisfaction or dissatisfaction with respect to the concerned needs.

The 12 statements* were required to be rated on a seven-point scale to indicate a respondent's favourable or unfavourable opinion regarding the statement. It was felt that a greater discrimination of response would be available on this scale than on a five-point one. Studies have shown that there is a marked tendency for individuals to avoid the extreme ends of a scale when conferring their judgments using a rating scale. The importance of each of these twelve statements which

* Appendix "E"

represent a specific need, was judged by the scale value of each need. [The Scale Value had earlier been determined by the Paired Comparison judgments (Table III(c))]

3.02(b) : Construction of Rating Scale to assess leadership characteristics.

A review of studies of leadership enabled the investigator to select 10 leadership characteristics which are frequently mentioned in most studies. They were as follows :-

1. Initiates action
2. Helps to focus members' attention on group goals
3. Clarifies problems
4. Makes information available to all members.
5. Evaluates quality of work done.
6. Helps to maintain good relationship in the group.
7. Settles disputes between members.
8. Provides encouragement when required.
9. Stimulates self-direction.
10. Increases interdependence among members.

The above list included both those characteristics which are responsible for achievement of group goals/objectives and those which are concerned with the maintenance of group relations. This list was initially administered to 25 teachers belonging to the following schools :-

1. All Saints High School.
2. St. Joseph High School
3. M.E.S.E.B. School, Kyrdemkulai
4. Government Boys' High School.
5. Khasi Pnar High School

The list consisting of the mentioned characteristics was accompanied by a letter to the teacher together with instructions in each. The lists were distributed to teachers and they were asked to give their opinions as to what are considered by them as the most important leadership qualities/ characteristics of Heads/Principals. Teachers were required to give their own ranking in the space provided following each characteristic. A copy appears in the Appendix "D".

In order to determine the importance attached by this group of teachers to each characteristic the Mean Rank of each characteristic was calculated. The ranks conferred on each leadership characteristic by the 25 judges (teachers) and the subsequent calculation of the mean ranks and standard deviations are shown in Table IV.

TABLE - IV

Ranks Assigned By Teachers In Judgment Of Leadership Characteristics

Judges	CHARACTERISTICS									
	I	II	III	IV	V	VI	VII	VIII	IX	X
1	1	9	3	4	8	5	6	2	10	7
2	6	8	5	3	2	1	10	9	7	4
3	3	4	5	2	9	1	8	6	7	10
4	7	1	10	2	9	3	8	5	4	6
5	1	2	6	5	9	3	10	7	4	8
6	2	6	5	4	10	1	7	9	3	8
7	6	3	5	4	7	2	8	10	1	9
8	1	4	5	3	10	2	9	6	7	8
9	2	6	4	5	7	3	1	8	10	9
10	4	1	7	9	10	5	6	8	3	2
11	1	9	2	6	4	5	8	3	10	7
12	3	5	6	2	7	8	9	4	1	10
13	7	5	3	10	8	1	6	9	4	2
14	9	4	7	2	10	1	5	8	3	6
15	7	6	3	2	5	1	9	8	10	4
16	1	3	5	7	8	9	10	6	4	2
17	1	4	6	2	3	5	8	10	9	7
18	9	6	7	4	8	1	2	5	10	3
19	1	9	4	5	3	6	8	2	10	7
20	5	4	7	6	9	3	8	10	1	2
21	1	9	4	3	10	2	5	6	8	7
22	1	3	4	2	5	7	8	9	6	10
23	2	5	7	6	10	4	3	9	8	1
24	3	7	6	2	9	4	10	8	1	5
25	2	5	9	3	6	8	10	4	1	7
R_j	86	131	135	100	186	91	182	171	142	151
$\frac{\sum R_j - R_j}{N}$	-51.5	-6.5	-2.5	-37.5	48.5	-46.5	44.5	33.5	4.5	13.5
$\frac{(R_j - \frac{\sum R_j}{N})^2}{N}$	2652.25	42.25	6.25	1406.25	2352.25	2162.25	1980.25	1122.25	20.25	182.25
Mean Rank	3.4	5.24	5.4	4	7.4	3.64	7.28	6.84	5.7	6.05
$\sigma = \sqrt{\frac{\sum d^2}{N}}$	2.47	2.35	1.85	2.2	2.43	2.45	2.30	2.43	3.36	2.76

= 1375
10

11926

.....77/.....

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$$\begin{aligned}\chi^2 &= \frac{S}{\frac{1}{12} kN(N+1)} * \\ &= \frac{11926.50}{\frac{1}{12} \times 25 \times 10 \times 11} \\ &= \frac{11926.50}{229.166} \\ &= 52.04\end{aligned}$$

χ^2 is significant at .001

$$\chi^2_{.001} = 27.88 \text{ for } 9 \cdot df$$

**W = Co-efficient of Concordance

$$\begin{aligned}W &= \frac{S}{\frac{1}{12} k^2(N^3 - N)} \\ &= \frac{11926.50}{\frac{1}{12} \times 25^2(10^3 - 10)} \\ &= \frac{11926.50}{\frac{1}{12} \times 625(1000 - 10)} \\ &= \frac{11926.50}{\frac{1}{12} \times 625 \times 990} \\ &= \frac{11926.50}{51562.50}\end{aligned}$$

$$W = .231$$

* Reference for the χ^2 formula

** Reference for the W formula

Sidney Siegal : Non Parametric Statistics for the Behavioural Science (Pp 231 - 236); International Student Edition - McGraw-Hill Kogakusha 1956

The above Table indicates that the value of χ^2 is 52.04 and it is significant at .001 level ($\chi^2_{.001} = 27.88$ for 9 df). This may be interpreted as revealing a coefficient of Concordance which is highly significant. Hence it may be concluded that the judges in rating the characteristics of leadership indicate a high degree of agreement.

Consequent to this analysis it was decided that only 6 out of the 10 characteristics would be chosen for the final instrument to assess perception of leadership: those with lowest Mean Ranks were selected for the final instrument. These six selected characteristics were,

- (i) Initiates action
- (ii) Helps to focus members' attention on group goals.
- (iii) Classifies problems.
- (iv) Makes information available to all members.
- (v) Helps to maintain good relationship in the group.
- (vi) Stimulates self-direction.

These six characteristics were required to be judged on a five-point rating scale by the respondents. The Job Satisfaction Scale, the ratings of leadership characteristics and the bio-data proposed to be collected were printed in the form of a consolidated booklet for administration and collection of data from the selected sample.

3.03 : Procedure For Data Collection :

The following procedure was adopted to collect data and to verify the hypothesis :-

After construction of the tools, viz. Job Satisfaction Scales and Ratings For Judgment of The Leadership Characteristics, a data collection device to record these measures and also the bio-data of respondents was administered personally to the teachers of the sample from 20 selected schools mentioned earlier. The entire data was designed to be obtained in a three-sheet booklet. A copy of this appears in the Appendix 'E'.

Data for this study was collected during the period of June to November 1989. Initially the investigator went to meet the Head of the school concerned and explained the purpose of the visit. This was then followed by fixing the date on which the investigator returned with the Questionnaire. In the beginning it was suggested that the Booklet be distributed through the Assistant Headmaster but this does not prove to be successful when the teachers did not return the Booklet in time. In one case out of 25 Questionnaires that were distributed only 5 of them were returned to the Assistant Head. Due to this apathetic attitude of some of the teachers the investigator decided to meet the teachers personally and request them to complete the Questionnaire within a day (during their 'OFF' period). In some cases where teachers were busy with the school routine they were allowed to take the Questionnaire home and return it the next day. In most of the schools

the investigator met the teachers in the teachers' Common Room and after a few introductory remarks from the Assistant Head (in some schools the Head) the investigator distributed the Booklet to the teachers. The teachers were also assured that their responses would be treated as confidential and that they would be used for research work only. Although the instructions were already provided in the Booklet, the teachers were requested not to hesitate if any clarification was required. No time limit was fixed but most teachers who agreed to do so responded in the school itself taking only 15 to 20 minutes to complete their responses.

In the process of data collection while in most cases there was co-operation from the Heads as well as the staff, the investigator did encounter some difficulties in some schools visited. On certain occasions the investigator could not distribute the Questionnaire as the Head Master seemed unwilling to co-operate after seeing the content of the Booklet. This can be due to the reason that some items require the teacher to judge their leaders as Principals. In some cases even when the assurance was given to the teachers that their responses would be treated confidentially there was less co-operation from some teachers because of the feeling that the information given might lead to some unfavourable situation in and outside the school. In such cases the investigator

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had to obtain data from some alternative school, while maintaining the principles guiding sample selection. The collection of data was also postponed for some weeks in the month of July and August as schools were having their Half-Yearly Examination followed by summer holidays. After visiting each school the investigator again went to meet the Head Masters/Principals and expressed her gratitude for the help and co-operation rendered by them.

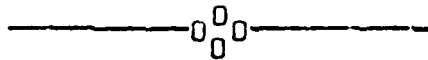
The completion of this process of collecting data enabled this investigator to undertake the next stage - the tabulation of data which is recorded in the following Chapter IV.

C H A P T E R - I V

4.00 : TABULATION OF THE DATA

C O N T E N T S

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C H A P T E R - IV

TABULATION OF THE DATA

This chapter deals with the process of scoring and tabulation of the responses obtained after the administration of the tools to the selected sample. The tabulation of the data was carried out under three main categories which are as follows :-

4.01. Data relating to information about the Age, Sex, Qualification, Experience and Religion of teachers was obtained from the 'Bio-data on page 2 of the data collection Booklet. These were tabulated in Tables V, VI, VII, VIII and IX.

4.02. Data relating to job satisfaction (concerned with 6 needs related to the job). This was obtained from page 2 of the Booklet/proforma which consisted of 12 statements and responses to these on a 7-point rating scale and were recorded in Tables X, XI and XII.

4.03. Data relating to leadership characteristics was obtained from page 3 of the Booklet which contained 6 characteristics and responses to these to be judged on a 5-point rating scale. These responses were tabulated in tables XIII and XIV.

4.01 : Data relating to personal information

TABLE - V(a)

showing the distribution of age (of teachers in years)
in the whole sample investigated

Age in years	f
55 - 59	5
50 - 54	13
45 - 49	11
40 - 44	30
35 - 39	47
30 - 34	33
25 - 29	57
20 - 24	24
N = 220	

$$\text{Mean} = 34.55$$

$$\sigma = 8.9$$

The mean age of teachers in the sample was computed to be 34.8 yrs ($\sigma = 8.9$) almost equal numbers were found to be between the levels 20 - 29 (N = 81) and between 30 - 39 (N = 80).

TABLE - V(b)

showing the distribution of age levels
(as determined from a consideration of
the Mean of the whole sample)

The Table below was later utilised for investigating
the association between Job Satisfaction and Age of Teachers

Age in years	Total	%
Above 43 (M + 1σ)	33	15 %
Between 26 - 43 (M ± 1σ)	149	68 %
Below 26 (M - 1σ)	38	17 %
	220	100 %

An examination of the above Table reveals that almost
(68%) of this sample was aged roughly between 26 and 43 years.

TABLE - VI

showing the distribution of male and female teachers in the sample

Sex	Total	%
Male	62	28 %
Female	158	72 %
Total	220	100 %

Table VI revealed that a vast majority of this sample (72%)
were women teachers.

TABLE - VII

showing the distribution of teachers
in two Educational Categories

Educational Qualification	N	%
Post Graduate	47	21 %
Graduates	173	79 %
Total	220	100 %

The data in Table VII indicated that the Graduates in this sample of teachers make up more than $\frac{3}{4}$ th of the sample.

TABLE - VIII(a)

showing the distribution of 7 categories of
Experiences of teachers (in years) in the sample

Experience of teachers (in years)	f
31 - 35	4
26 - 30	5
21 - 25	13
16 - 20	33
11 - 15	37
6 - 10	54
1 - 5	74
N = 220	

Mean (years of Experience) = 10.45

$\sigma = 7.35$

TABLE - VIII(b)

showing the distribution of 3 categories of Experience of teachers (in years) as taken from the Mean

Experience (in years)	N	%
Above 18 ($M + 1\sigma$)	35	16%
Between 3 and 18 ($M \pm 1\sigma$)	150	68%
Below 3 ($M - 1\sigma$)	35	16%
Total	220	100%

TABLE - IX

showing the distribution of Religious affiliations of teachers in the sample

Religion	N	%
Christian	107	49
Hindu	96	44
Others	17	7
Total	220	100%

4.02 Data relating to job satisfaction scale (concerned with needs related to the job). This scale, as mentioned in Chapter III, contained 12 statements which expressed satisfaction or

dissatisfaction with the six most important needs subjected to investigation. These statements were to be rated on a 7-point rating scale ranging from "very strong Agreement" to "very strong disagreement" (point 1 to point 7). The fourth on the scale indicated a "neutral" or an "undecided" attitude. Each of the six needs was represented by two statements - one indicating satisfaction and another indicating dissatisfaction. On the other hand one is a positive statement while the other is a negative statement (relating to Job satisfaction). For example, statement 3 - "Others in my profession and the public consider my job to have much less prestige and status attached to it than other teaching jobs" - represents an attitude of dissatisfaction felt in relation to the need for prestige and status. For this same need statement No.9 - "In my judgment my job is as worthy as any other in matters of prestige and status" - represents a positive sense of satisfaction felt to this same need. The other needs were also represented in this same way. For scoring the statements all those which indicate satisfaction were scored over the range 7, 6, 5, 4, 3, 2, 1, to correspond with ratings ranging from "very strong Agreement" to "very strong disagreement". On the other hand all those statements which indicate dissatisfaction were scored over the range 7, 6, 5, 4, 3, 2, 1, but to correspond to the rating categories extending from "very strong disagreement" to "very strong agreement". In case

of individuals who did not check a statement a score of 4 corresponding to the 'undecided' rating category was assigned. These scores indicate the degree of agreement with the statement and hence the satisfaction derived from certain needs associated with their jobs. These scores did not take account of the importance attached to each need which the statements represent. Therefore in order to obtain a job satisfaction score which accounts for both the satisfaction obtained and the importance attached to the need, each rating of a statement was multiplied by the scale value of each need as indicated in Table III(c) (Chapter III). Thus, ratings in statements 1 and 7 which were connected with the need for Income and Security were multiplied by 2.1. Ratings in statements 2 and 8 (suitable/satisfactory Work Environment) were multiplied by 1.6. Ratings in statements 3 and 9 (Prestige and Status) were multiplied by 1.6. Ratings in statements 4 and 10 (Mastery and Achievement) were multiplied by 1.6. Ratings in statements 5 and 11 (Opportunities for Promotion and Advancement) were multiplied by 1.5. The final score obtained, therefore, accounted for both the satisfaction obtained and the importance attached to the needs. Table X below shows the distribution of the scores and the Mean and Standard Deviation of the whole sample.

TABLE - X

showing the Distribution of the Job Satisfaction Scores, the Mean and Standard Deviation (σ) of the whole sample

Scores	f	%
120 - 129	1	.3%
110 - 119	10	4.5%
100 - 109	16	7.2%
90 - 99	47	22.0%
80 - 89	56	25.0%
70 - 79	46	21.0%
60 - 69	24	11.0%
50 - 59	17	8.0%
40 - 49	3	1.0%
N = 220		100.0%

Mean = 82.5

σ = 15.84

Apart from determination of the Job Satisfaction scores of each individual the data obtained from the Job Satisfaction Scale were next subjected to another form of analysis.

As already mentioned the statements in the Scale indicate their approval or disapproval on a seven-point scale. Thus,

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each rating would reflect satisfaction or dissatisfaction with the six needs (as represented by 12 statements) involved in the fulfilment of needs related to the job (Job Satisfaction). Table XI below presents the numbers (in percentage) of responses expressing satisfaction or favourable, dis-satisfaction/unfavourable or neutral attitude with respect to each of the six needs which were assessed by the Job Satisfaction Scale.

TABLE - XI
showing an Analysis of the Responses of
the Job Satisfaction Scale

Statements/Needs	Judgments/Ratings			Total
	Favourable Rating 7,6,5	Neutral Rating 4	Unfavourable Rating 3,2,1	
Income & Security (Statements 1 & 7)	145 (33%)	51 (12%)	244 (55%)	440 (100%)
Suitable/Satisfactory Work Environment (Statements 2 & 8)	189 (43%)	76 (17%)	175 (40%)	440 (100%)
Prestige & Status (Statements 3 & 9)	301 (68%)	40 (9%)	99 (23%)	440 (100%)
Mastery & Achievement (Statements 4 & 10)	233 (53%)	72 (16%)	135 (31%)	440 (100%)
Opportunities For Promotion And Advancement. (Statements 5 & 11)	117 (27%)	72 (16%)	251 (57%)	440 (100%)
Interpersonal Relationship (Statements 6 & 12)	393 (89%)	15 (4%)	32 (7%)	440 (100%)
T o t a l	1378 (52%)	326 (12%)	936 (36%)	440 (100%)

The data tabulated in Tables X and XI reveal that more than half the sample of teachers investigated (82%) expressed satisfaction in the fulfilment of the six needs related to Job Satisfaction. Some of these needs, e.g. fulfilment in Interpersonal relationships (89%) and for fulfilment of Prestige and Status needs (68%) seem to obtain greater satisfaction than those related to "Opportunities for promotion", while approximately only about half the sample (43% and 53% respectively report being satisfied in fulfilling their needs for a suitable Work Environment and for attaining Mastery and Achievement in their jobs.

For identifying the existence of any trends/patterns in the distribution of measures of job satisfaction the data (Job Satisfaction scores) were next subjected to another form of analysis. This analysis can be made use of as an attempt for fulfilling objective No.1 of the study as mentioned in Chapter I

A χ^2 test was conducted to find out if there is a significant difference between the observed responses (f_o) and those expected (f_e) on the hypothesis of a normal distribution. From the result of obtained from the following Table XII ($\chi^2 = 2.16$) it may be considered that the Job Satisfaction scores of teachers in the sample were normally distributed. This may be interpreted as indicating that about $\frac{2}{3}$ of teachers - 154 out of 220 or 70% - seem to obtain scores within a range of $M \pm 1\sigma$ or that the majority are obtaining scores indicating an average level of Job Satisfaction.

TABLE - XII

presenting a 4 x 2 Contingency Table and a χ^2 test

	Below M - 1σ Below 67	Between M and - 1σ (67-81)	Between M and + 1σ (82-98)	Above M + 1σ Above 98	Total
f_o	36	70	84	30	220
f_e	35	75	75	35	220
$f_o - f_e$	1	-5	9	5	
$\frac{(f_o - f_e)^2}{f_e}$	$\frac{1}{35}$ = .0286	$\frac{25}{75}$ = .3333	$\frac{81}{75}$ 1.08	$\frac{25}{35}$ = .7143	

$$\chi^2 = 2.1562$$

$$df = 3 \times 1 = 3$$

χ^2 is not significant

Before listing the hypotheses, further work on Job Satisfaction Scale involved an investigation of the reliability of this scale for the whole sample. This was done by splitting the 12 statements of the Job Satisfaction Scale into two equal parts (6 statements in each half), thus obtaining the scores for six needs in the top half (Statements 1 - 6) and scores for the corresponding 6 needs in the lower half (Statements 7 - 12). Product Moment correlations were worked out for the whole sample and the Spearman Brown Correction¹ was used for obtaining a measure of the reliability of the Job Satisfaction scores. The procedure is presented in the Appendix*. From this calculation

¹ Spearman Brown formula for correction of a Split half and from H.E. Garrett Testing for Teaching; Eurasia Publishing House, New Delhi, 1959 P 224.

*Appendix 'F'

the reliability of the Job Satisfaction Scale yielded a co-efficient of .81. This is an adequately high correlation, indicating that the Job Satisfaction Scale was a reliable instrument.

With the completion of the above calculation of reliability the Job Satisfaction data were ready for use in testing the hypotheses to be presented in the next chapter V.

4.03. Data relating to Leadership Characteristics :

This rating scale as mentioned earlier (Chapter III) consisted of the 6 most important leadership qualities or characteristics which were to be rated on a 5-point rating scale ranging from the highest rating which is point 1 in the scale to the lowest rating which is point 5. The intermediate points between 1 and 5 indicate lower ratings than the highest, i.e. a rating of 1. In scoring the responses to this scale, checks made by each respondent were noted and scored accordingly. For example, a teacher who checked at point "1" to the first characteristic - "Initiates action" - indicated that his/her Principal was rated very high on this quality. Therefore the score given to this characteristic was allotted one point. This same procedure was followed in scoring all the other leadership qualities/characteristics. The following table shows an analysis of all the ratings of leadership characteristics for the whole sample.

TABLE - XIII

showing an Analysis of Data obtained from judgments/Ratings of Leadership Characteristics

Ratings	No.	%
1 and 2	823	62%
3	333	25%
4 and 5	164	13%
Total	1320	100%

The data revealed in the above table seems to indicate that the majority of the sample - 62% - indicate ratings of "1" or "2" in the various characteristics of their judgments which they were required to judge, thus indicating that the majority did rate their Heads and Principals highly in terms of the leadership qualities submitted for their judgment. Further work in ratings of leadership characteristics involved an investigation of the reliability of these rating scales. This was carried out by splitting the 6 characteristics into two equivalent halves. In doing this two sets of scores were obtained by combining judgments (ratings) on alternate items in the rating scale. Thus, the first set of scores represented the sum total of the ratings on the ratings delivered to characteristics with odd serial numbers (1, 3, 5) and the second set was obtained from the scores (ratings) on the characteristics bearing even serial numbers (i.e items 2, 4, 6). The next step was to find out the

the Means and Standard Deviations (σ) of the scores of the sample on the two different sets of characteristics (odd and even). The computations of these are as under :-

Characteristics 1,3,5 (odd)	Characteristics 2,4,6 (even)
$M = 7$	$M = 7$
$\sigma = 2.58$	$\sigma = 2.38$

Using the above data a ϕ (phi) Co-efficient was computed to indicate the measure of reliability of the rating scales to judge leadership characteristics.

TABLE - XIV

Data for calculation of ϕ Co-efficient for ratings of leadership characteristics

Even \ Odd	7 and Below	Above 7	Total
Above 7	(B) 31	(A) 53	84 (A + B)
7 and Below	(D) 119	(C) 17	136 (C + D)
Total	150	70	220

$$\begin{aligned} \phi &= \frac{AD - BC}{\sqrt{(A + B)(C + D)(B + D)(A + C)}} \\ &= \frac{53 \times 119 - 31 \times 17}{\sqrt{84 \times 136 \times 150 \times 70}} \\ &= \frac{6307 - 527}{\sqrt{11424 \times 10500}} \\ &= \frac{5780}{106.88 \times 102.47} \\ &= \frac{5780}{10952} \end{aligned}$$

Correction : $r = \frac{2 \times r(\text{half test})}{1 + r(\text{half test})}$

$$r = \frac{2 \times .53}{1 + .53}$$

$$= .69$$

As the ϕ (phi) co-efficient may be regarded as approximately equivalent to a Product Moment Co-efficient the Spearman Brown* Correction Formula was applied to the obtained value of ϕ . This yielded a value of .69. This corrected ϕ value of .69 indicates that the scores obtained in the 'odd' and 'even' numbered sections of the leadership rating scales were highly related; hence indicating that these scales were adequately reliable measuring devices.

*Spearman Brown Prophecy Formula for estimating reliability in H.E. Garrett Statistics in Psychology and Education International Book Bureau; Hyderabad, 1979 p 339

C H A P T E R - V

5.00 : ANALYSIS AND INTERPRETATION

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C H A P T E R - V

Analysis And Interpretation

The data tabulated in the previous chapter indicated that both the tools utilised, i.e., the Job Satisfaction Scale and the set of Ratings to assess leadership were of an adequate reliability. The Job Satisfaction Scale yielded a reliability of $r = .81$ (corrected for split half reliability) while the corrected phi (ϕ) Co-efficient to assess the reliability of the ratings of leadership yielded a value of .68. Both these may be regarded, as stated hitherto, as evidences of the reliability of the measuring devices.

It is now proposed to test (verify) the hypotheses framed in the previous chapter (Chapter II). In attempting this exercise it is proposed to state each hypothesis formally, present the tests applied for this process and interpret their results.

5.01 : Hypothesis No.1 : Significant differences in job satisfaction may be identifiable between groups of teachers belonging to different varieties of management (Government, Deficit, Private and Ad-hoc).

In order to verify the above stated hypothesis a 2 x 4 contingency table was compiled and is presented below :-

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TABLE XV

2 x 4 Contingency Table to verify relationships between Job Satisfaction And Managing Authorities of Schools

Management	Job Satisfaction Scores		Total
	98 and below	Above 98	
Deficit	(75.1) 83 (.95)	(11.9) 4 (.05)	87
Ad-hoc	(39.7) 34 (.74)	(6.3) 12 (.26)	46
Private	(50.1) 51 (.88)	(7.9) 7 (.12)	58
Government	(25.1) 22 (.76)	(4.0) 7 (.24)	29
Total	190	30	220

Expected frequencies are presented in brackets above the observed in appropriate cells. (Proportions are presented in brackets in each cell in brackets below each observed frequency)

$$\chi^2 = 14.80$$

χ^2 is significant at .01 level ($\chi^2_{.01}$ for 3df = 11.345)

$$C \text{ (Co-efficient of Contingency)} = .25$$

The data presented in Table XV above revealed a significant Chi-square value of the level of 14.80. This may be interpreted as indicating a significant association between the two variables, i.e. Job Satisfaction and Managing Authority of the school in the sample (i.e. Deficit, Ad-hoc, etc.).

A Co-efficient of Contingency of the value of .25 indicates that this relationship is of a moderately high degree as with the number of classes subjected to test in this case (2 x 4) maximum value of .816 or .866 may be expected¹. Hence the managing authorities of the schools concerned probably have an influence in determining the job satisfaction of the teachers they employ. In this investigation Government and Ad-hoc school teachers obtained considerably greater proportions (24% and 26% respectively) of higher job satisfaction scores (above 98) than their contemporaries Deficit or Private schools (5% and 12% respectively). Also a considerably higher proportions of the Deficit and Private school teachers score less on job satisfaction in comparison with their Government and Ad-hoc counterparts (95% to 88% Vs 76% to 74%). Hence it can be concluded that a test of this hypothesis indicated that the data obtained provided a substantial confirmation of this hypothesis. Further analysis of the data obtained to test this hypothesis was attempted by investigating how the four categories of schools (Government, Private, Deficit and Ad-hoc) differed with regard to the particular needs (Income and Security, Work Environment etc.) which constituted the Job Satisfaction Scale. Means and Standard Deviations (σ) of the four categories of schools were computed and 't' test conducted to investigate differences between the schools with regard to the particular need subjected to test.

¹ H.E. Garrett - Statistics in Psychology and Education; Longmans, Green and Co. (4th Edition) Newyork, 1953 (page 370).

Tables No. XVI(a), (b), (c), (d), (e), (f) present the 't' tests and their interpretations.

TABLE - XVI(a)

Difference between 4 different school groups with regard to satisfaction regarding Income and Security

Groups Compared	N	Mean	σ	σ_D	CR	Level of Significance
Govt. Vs Private	29 58	18.5 12.1	6.2 5.1	7.33	4.81	Significant at .01 level
Govt. Vs Ad-hoc	29 46	18.5 14.2	6.2 6.2	1.47	2.93	Significant at .05 level
Govt. Vs Deficit	29 87	18.5 13.4	6.2 5.9	1.32	3.85	Significant
Private Vs Ad-hoc	58 46	12.1 14.2	5.1 6.2	1.14	1.84	Significant at .05 level
Private Vs Deficit	58 87	12.1 13.4	5.1 5.9	.92	1.41	Not Significant
Ad-hoc Vs Deficit	46 87	14.2 13.4	6.2 5.9	1.11	.72	Not Significant

An examination of the above table indicates that the Government school teachers seem to be the most satisfied with regard to the income and security offered in their job. An examination of the tables reveals that there are significant differences between this variety of schools and the others.



The Ad-hoc variety of schools also significantly differ from their private counterparts with regard to the fulfilment of this need associated with job satisfaction. Hence the general conclusion may be that teachers in Government schools tend to be more satisfied with regard to the income and security in their job than their counterparts in the other categories of school.

TABLE - XVI(b)

Difference between 4 school groups with regard to the Work Environment in their jobs

Groups Compared	Mean	σ	\overline{OD}	CR	Level of Significance
Govt. Vs Private	14.14 13.62	3.95 4.55	.95	.55	Not Significant
Govt. Vs Ad-hoc	14.14 12.61	3.95 4.65	1.00	1.53	Not Significant
Govt. Vs Deficit	14.14 12.41	3.95 4.10	.85	2.01	Significant at .05 level
Private Vs Ad-hoc	13.62 12.61	4.55 4.65	.91	1.11	Not Significant
Private Vs Deficit	13.62 12.41	4.55 4.10	.74	1.64	Not Significant
Ad-hoc Vs Deficit	12.61 12.41	4.65 4.10	.81	.25	Not Significant

Table XVI(b) presents the data related to differences between the four varieties of school groups under investigation

with regard to their opinions relating to the work environment encountered in their places of work. The 't' test conducted to investigate differences between the groups with regard to this need reveals no significant differences between them except when Government and Deficit schools were compared in computation of the 't' test. This result may be interpreted as indicating that the schools under investigation were generally holding similar opinions regarding the Work Environment they encountered in their places of work. Teachers in government schools when compared with those in Deficit schools, however, seem to have a better opinion of their work environment.

TABLE - XVI(c)

Differences between 4 school groups with regard to the Prestige and Status associated with their jobs

Groups Compared	Mean	σ	σ_D	CR	Level of Significance
Govt. Vs Private	16.90 16.64	2.80 3.95	.73	.36	Not Significant
Govt. Vs Ad-hoc	16.90 15.33	2.80 4.94	.89	1.09	Not Significant
Govt. Vs Deficit	16.90 15.63	2.80 4.39	.70	1.81	Not Significant
Private Vs Ad-hoc	16.64 15.33	3.95 4.94	.89	1.47	Not Significant
Private Vs Deficit	16.64 15.63	3.95 4.39	.70	1.44	Not Significant
Ad-hoc Vs Deficit	15.33 15.63	4.94 4.39	.87	.34	Not Significant

Table XVI(c) presented above indicates the data and results of 't' tests when the four groups were compared in pairs to investigate their opinions regarding the prestige and status associated with their jobs. As the Table reveals, no significant differences were obtained in any of the 6 comparisons. This may be interpreted as indicating that with regard to the prestige and status associated with their job the groups are of more or less the same opinion.

TABLE - XVI (d)

Differences between 4 school groups with regard to the Opportunities for Mastery and Achievement on their jobs

Groups Compared	Mean	σ	OD	CR	Level of Significance
Govt. Vs. Private	16.21 14.14	2.14 4.56	.72	2.88	Significant at .01 level t_{05} for 85 df = 2.63
Govt. Vs. Ad-hoc	16.21 14.78	2.14 3.46	.65	2.20	Significant at .05 level t_{05} for 73df = 2.64
Govt. Vs Deficit	16.21 13.10	2.14 4.50	.62	5.02	Significant at .01 level
Private Vs Ad-hoc	14.14 14.78	4.56 3.46	.85	.75	Not Significant
Private Vs Deficit	14.14 13.10	4.56 4.50	.77	1.35	Not Significant t_{05} for 134df = 1.98
Ad-hoc Vs Deficit	14.78 13.10	3.46 4.50	.70	2.40	Significant at .05 level

The above Table presents the 6 (six) 't' tests conducted to investigate the opinion of teachers in the sample with regard to the opportunities in their jobs to use to the best of their abilities, their aptitudes, skills etc. (Mastery and Achievement). Here, again, teachers drawn from Government schools revealed significant differences when compared with their counterparts from the other varieties of school. There was also a significant difference when Ad-hoc schools were compared with Deficit schools. The results of these tests may lead one to conclude that teachers in Government schools generally seem to be of the opinion that they have better opportunities in their jobs for use of whatever aptitude, skills which they possess than their counterparts in other categories of schools.

The following Table XVI (e) presents 't' tests conducted to verify differences between these four groups of teachers with regard to their opinions regarding opportunities for Promotion and Advancement in their jobs. The Ad-hoc school teachers seem to have expressed the most favourable opinion in this regard (They obtained the highest Mean score of 12.5). Hence it may be concluded that when this group was compared with others all the 't' tests revealed significant differences.

TABLE - XVI (e)

Differences between 4 school groups with regard to opportunities for Promotion And Advancement

GROUPS COMPARED	MEAN	σ	σ_D	CR	Level of Significance
Govt. Vs Private	9.48 8.97	3.30 4.15	.82	.62	Not Significant
Govt. Vs Ad-hoc	9.48 12.50	3.30 4.65	.89	3.39	Significant
Govt. Vs Deficit	9.48 9.77	3.30 4.21	.76	.38	Not significant
Private Vs Ad-hoc	8.97 12.50	4.15 4.65	.88	4.01	Significant
Private Vs Deficit	8.97 9.77	4.15 4.21	.71	1.13	Not significant t_{05} for 143df = 1.93
Ad-hoc Vs Deficit	12.50 9.77	4.65 4.21	.82	3.33	Significant

Table XVI (f) on the following page presents the 't' tests conducted with regard to differences between the four school groups about their opinions of interpersonal relationships which are encountered in their places of work:

TABLE - XVI (f)

Differences between 4 school groups with regard to Interpersonal Relationship in their jobs

Groups Compared	Mean	σ	σ_D	CR	Level of Significance
Govt. Vs Private	15.69 18.02	3.14 3.23	.72	3.24	Significant at .01 level t_{05} for 85df = 2.63
Govt. Vs Ad-hoc	15.69 17.83	3.14 3.22	.75	2.85	Significant at .01 level t_{01} for 80df = 2.63
Govt. Vs Deficit	15.69 15.63	3.14 3.83	.71	.08	Not Significant
Private Vs Ad-hoc	18.02 17.83	3.23 3.22	.64	.29	Not Significant
Private Vs Deficit	18.02 15.63	3.23 3.83	.59	4.05	Significant at .01 level t_{01} for 146df = 2.63
Ad-hoc Vs Deficit	17.83 15.63	3.22 3.83	.63	3.49	Significant at .01 level t_{01} for 131 df = 2.63

An examination of the above Table indicates that Private schools were the most satisfied (in terms of Mean score) with regard to the interpersonal relationships existing in their work environment. They were followed closely by the Ad-hoc variety of schools; the Government and Deficit schools, however, have a considerably less high opinion about their interpersonal relationships encountered in their job. The Private and the Ad-hoc schools when compared with their Government and Deficit

counterparts reveal significant differences with regard to their opinions about interpersonal relationships in their schools. Hence this may indicate that in Government and Deficit schools interpersonal relationships may not be as desirable as they could be, and in this respect they seem to suffer in comparison with their Private and Ad-hoc counterparts.

5.02 : Hypothesis No. II : Differences in job satisfaction may be identifiable between Male and Female teachers in the sample under investigation.

To test the above hypothesis a 3 x 2 Contingency Table was compiled and is presented in Table XVII below :-

TABLE - XVII

A 3 x 2 Contingency Table to test differences in Job Satisfaction between Males and Females

Sex	Job Satisfaction			Total
	Below 67	Between 67 and 98	Above 98	
Male	(10.15) 10 (.16)	(43.40) 48 (.78)	(8.45) 4 (.06)	62
Female	(25.85) 26 (.16)	(110.6) 106 (.68)	(21.55) 26 (.16)	158
Total	36	154	30	220

Expected frequencies are presented in brackets above observed frequency; proportions are presented in each cell in brackets below each observed frequency.

$$\chi^2 = 4.02 \text{ not significant}$$
$$\chi_{05}^2 \text{ for 2 df} = 5.9917$$

An examination of the data presented in the above Table and the χ^2 test computed indicate that there was no difference in the job satisfaction between groups of male and female teachers in the sample under investigation. Hence the Hypothesis as stated would have to be rejected in consideration of the data obtained in this investigation. Further examination of the proportions in each cell of the above Table reveals almost similar job satisfaction scores for the males and females. While high scoring males and females make up 16% and 6% respectively, low scorers are similar (16% in each case) and the average scores amongst these categories make up 78% and 68% respectively.

5.03 : Hypothesis No.III : Significant differences in job satisfaction would be identifiable between teachers having different religious affiliations (Christian, Hindu and others).

For the purpose of verifying the above Hypothesis the religious groups were classified in terms of christians (to include both Roman Catholics and Protestants), Hindus and others which included muslims, Budhists etc.). A 3 x 3 Contingency Table to test this hypothesis was compiled and is presented in Table XVIII below

TABLE - XVIII

A 3 x 3 Contingency Table to test differences in Job Satisfaction between 3 religious groups

Religion	Job Satisfaction			Total
	Below 67	Between 67 - 98	Above 98	
Christian	(17.51) 22 (.21)	(74.90) 71 (.66)	(14.59) 14 (.13)	107
Hindus	(15.71) 10 (.10)	(76.20) 72 (.75)	(13.09) 14 (.15)	96
Others	(2.78) 4 (.23)	(11.90) 11 (.65)	(2.32) 2 (.12)	17
Total	36	154	30	220

Expected frequencies are presented in brackets above observed frequencies. Proportions are presented in each cell in brackets below each observed frequency.

$$\chi^2 = 4.5 \text{ not significant}$$

$$\Delta \chi^2 \text{ for 4 df} = 9.4887$$

The χ^2 test computed above was not significant at the .055 level and hence this result may be interpreted as indicating that job satisfaction was not influenced by the religious affiliations of the teachers under investigation. A further examination of the proportions scoring above 98 (which may be regarded as a high job satisfaction score above $M + 1\sigma$) in the above Table indicates percentages between 12 and 15 for the

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above three religious groupings. Average scores (between 67 and 98) vary from 65% to 66% for these religious groups. Hence it can be concluded that for this sample under investigation religious affiliations may not be a significant influence in determining the satisfaction that teachers obtained from needs related to their jobs.

5.04 : Hypothesis No. IV : Significant differences in job satisfaction would be identifiable between groups of teachers categorised under different age groups/levels.

In testing the above hypothesis three age groups above 43 years, between 26 and 43, and below 26 years were compared in terms of their job satisfaction scores. This categorisation of the three groups was based approximately upon the Mean (34.5) and σ (8.9) of the sample (Table V(a) and V(b) Chapter IV). These three groups corresponded to ages above $M + 1\sigma$ (Above 43), between $M \pm 1\sigma$ (between 26 and 43) and below $M - 1\sigma$ (below 26). A 3 x 3 Contingency Table to test this hypothesis was compiled and is presented in Table XIX on the next page.

Expected frequencies are presented in brackets above observed frequencies. Proportions are presented in each cell in brackets below each observed frequency.

$$\chi^2 = 7.59 \text{ (not significant)}$$

$$\chi^2 \text{ for } 4df = 9.488$$

The stated hypothesis was rejected as the χ^2 test conducted indicated no significant differences at the .05 level between the variables being tested. A further examination of the Table

below reveals almost similar proportions in the three levels of the job satisfaction scores between teachers in the age groups between 26 and 43 and above. Differences in proportions in the job satisfaction scores of the below 26 age groups and other two groups were noted. However, the test revealed no significant differences as stated earlier.

TABLE - XIX

A 3 x 3 Contingency Table to test relationship between Job Satisfaction and age of teachers

Age	Job Satisfaction			Total
	Below 67	Between 67 - 98	Above 98	
Above 43 (M + 1σ)	(5.4) 2 (.06)	(23.10) 26 (.79)	(4.50) 5 (.15)	33
Between 26 - 43 (M ± 1σ)	(24.38) 23 (.05)	(104.3) 104 (.70)	(20.32) 22 (.15)	149
Below 26 (M - 1σ)	(6.23) 11 (.29)	(26.60) 24 (.63)	(5.18) 3 (.80)	38
Total	36	154	30	220

5.05 : Hypothesis No. V : Differences may be identifiable in job satisfaction between teachers of different levels of experience (in terms of duration of service).

For the purpose of verifying the above hypothesis a 3 x 3 Contingency Table was compiled and is presented in Table XX on the following page. Three categories of experience, i.e. teachers with above 18 years of service, teachers with

between 3 - 18 years of service and teachers with below 3 years of service were compared with respect to their job satisfaction scores. These three categories corresponded to service periods categorised by three levels, viz. $M + 1\sigma$, between $M \pm 1\sigma$ and below $M - 1\sigma$ respectively [Table VIII(a) and Table VIII (b)]

TABLE - XX

A 3 x 3 Contingency test to investigate relationship between Job Satisfaction And Experience

Years of experience	Job Satisfaction			Total
	Below 67	Between 67 - 98	Above 98	
Above 18 ($M + 1\sigma$)	(5.73) 2 (.06)	(24.50) 27 (.77)	(4.77) 6 (.17)	35
Between 3-18 ($M \pm 1\sigma$)	(24.55) 24 (.16)	(105) 106 (.71)	(20.45) 20 (.13)	150
Below 3 ($M - 1\sigma$)	(5.73) 10 (.20)	(24.50) 21 (.60)	(4.77) 4 (.11)	35
	36	154	30	220

Expected frequencies are presented in brackets above observed frequencies. Proportions are presented in each cell in brackets below each observed frequency.

$$\chi^2 = 6.84 \text{ not significant}$$

The result of the χ^2 test conducted above indicated no significant differences between three levels of job satisfaction scores on three categories of experience (service). Hence this

result again may be interpreted as indicating no influence on job satisfaction attributable to the length of service or experience of the teachers. If this experience (it would be agreed) would be related to the age of teachers concerned, then the finding agrees with the previous one which revealed no association between job satisfaction and the age of teachers under investigation.

5.06 : Hypothesis No. VI : There would be significant differences in job satisfaction between Graduate and Post Graduate groups of teachers.

To test the above hypothesis a 3 x 2 Contingency Table was compiled and is presented below :-

TABLE - XXI

A 3 x 2 Contingency Table to test differences in Job Satisfaction between graduate and post graduate teachers

Qualification	Job Satisfaction			Total
	Below	Between	Above	
Post Graduate	(7.69) 4 (.09)	(32.90) 29 (.61)	(6.41) 14 (.30)	47
Graduate	(28.31) 32 (.18)	(12.11) 125 (.73)	(23.59) 16 (.09)	173

Expected frequencies are presented in brackets above observed frequencies. Proportions are presented in each cell in brackets below each observed frequency.

$$\chi^2 = 14.27$$

χ^2 is significant at .01 level

$$\chi^2_{.01} \text{ for } 2df = 5.991$$

$$\text{Contingency Co-efficient } C = .25$$

The χ^2 test computed to test the above hypothesis revealed a highly significant difference ($\chi^2 = 14.27$ which was significant at .01 level). A Contingency Co-efficient of .25 further testifies to the relationship between a teacher's qualification and his or her job satisfaction. In the sample under investigation the proportion of post Graduate teachers obtaining high job satisfaction scores differed considerably from the proportions amongst the graduate teachers in the sample (30% Vs 9%). The proportions between these two categories amongst the average and lower categories of job satisfaction scores also reveal considerable differences (61% and 9%) amongst the Post Graduate group versus 73% and 18% amongst the graduate groups. Hence the data obtained in this investigation is a strong confirmation of the hypothesis. Post Graduate teachers, it seems, tend to be more satisfied in their job than their graduate counterparts. If one considers that the Post Graduates have spent a greater time and energy for the acquisition of their qualifications it may be possible they are experiencing greater success in their jobs and hence deriving a greater amount of satisfaction as a result of their performance which is reflected in their higher job satisfaction scores.

To further examine the differences between these two groups 't' tests were conducted to investigate differences between them in each of the six needs. Table XXII presents the result of these 't' tests.

TABLE - XXII

presenting 't' tests to investigate differences between Graduate and Post Graduate teachers in each of the six needs -

Groups Compared	NEEDS					
	I	II	III	IV	V	VI
	Income And Security	Work Environment	Prestige And Status	Mastery And Achievement	Promotion And Advancement	Interpersonal Relationship
Post Graduate	M = 16.80 σ = 6.8 N = 47	M = 14.04 σ = 4.8 N = 47	M = 17.23 σ = 3.39 N = 47	M = 13.94 σ = 4.24 N = 47	M = 10 σ = 3.85 N = 47	M = 16.06 σ = 3.85 N = 47
Graduate	M = 13.01 σ = 5.74 N = 173	M = 12.82 σ = 4.25 N = 173	M = 15.69 σ = 4.42 N = 173	M = 14.05 σ = 4.09 N = 173	M = 10.32 σ = 4.4 N = 173	M = 16.82 σ = 3.70 N = 173
Results of 't' tests	σ _D = 1.08 CR = 3.51 Significant at .01 level	σ _D = .62 CR = 1.96 Not significant	σ _D = .59 CR = 2.61 Significant at .01 level	σ _D = .69 CR = .16 Not significant	σ _D = .66 CR = .48 Not significant	σ _D = .63 CR = 1.21 Not significant

An examination of the above Table XXII reveals that Post Graduate teachers seem to be more satisfied with regard to the

income and security offered in their jobs. As the Table reveals there is a significant difference between Post Graduate and Graduate teachers with respect to this need. Further examination of the Table reveals that there is a significant difference of opinion between Post Graduate and Graduate teachers regarding Prestige and Status which their jobs command. Post Graduate teachers seem to consider their job as having more Prestige and Status. Regarding four other needs, viz. Work Environment, Mastery And Achievement, Promotion and Advancement and Interpersonal Relationship, the 't' tests reveal that there are no significant differences between Graduates and Post Graduate teachers. This result may be interpreted that teachers (both Graduates and Post Graduates) were generally holding similar opinions regarding the above mentioned needs.

5.07 : Hypothesis No. VII : There would be a positive relationship between job satisfaction of teachers and an assessment of leadership characteristics of Heads/Principals as perceived by their subordinate teachers.

To test the above hypothesis a 3 x 3 Contingency table was compiled. This Table which is presented on the next page (Table XXIII) has three levels of job satisfaction as in the other hypotheses which are compared to the ratings by teachers in the sample of the leadership characteristics of their Heads/Principals. These leadership characteristics consisted of 6 different leadership characteristics which were required to be

judged by each individual teachers with reference to their own Heads/Principals. In compiling Table XXIII below, 3 categories of ratings were considered, i.e., 1 and 2 (these were relatively higher judgments of a leadership characteristic), 3 (this was a neutral judgment of a leadership characteristic) and 4 and 5 (these were relatively lower judgment of a leadership characteristic).

TABLE - XXIII

A 3 x 3 Contingency Table to verify the relationship between job satisfaction and leadership qualities

Ratings	J o b S a t i s f a c t i o n			Total
	Below 67	Between 67 - 98	Above 98	
1 and 2	(134.67) 152(.70)	(576.10) 553(.60)	(112.23) 118(.66)	823
3	(54.49) 45(.21)	(233.1) 244(.26)	(45.41) 44(.24)	333
4 and 5	(26.84) 19(.90)	(114.80) 127(.14)	(22.36) 18(.11)	164
T o t a l	216 36	924 154	180 30	1320

Expected frequencies are presented in brackets above observed frequencies. Proportions are presented in each cell in brackets in line with each observed frequency.

$$\chi^2 = 10.1 \text{ significant at } .05 \text{ level}$$

$$(\chi^2_{.05} \text{ for } 4df = 9.448)$$

$$C = .08$$

The χ^2 test computed for the above Table revealed a value significant at the .05 level. A co-efficient of Contingency (C) calculated for the above revealed a value of .08 which can be interpreted as not indicating a very high degree of linear relationship between Job Satisfaction and teachers' perception of leadership characteristics of their Heads/Principals. However, as there is a significant difference as indicated by the χ^2 test, there may be some reason to believe a more complicated relationship may exist between job satisfaction scores and the judgments of teachers of leadership qualities of their Heads/Principals. Further reference to the above Table reveals that while the high and the low job satisfaction scorers think highly of the leadership characteristics of their Heads (Proportion of 65% and 70% respectively) the proportion of the average job satisfaction scorers judging their Heads similarly is not as much (60%). Similarly while smaller proportion of the high and low job satisfaction scorers rate these leadership qualities poorly. (Ratings of 4 and 5) slightly larger proportions of the average job satisfaction scorers confer these ratings on their Heads/Principals. Thus there seems to be a tendency on the part of the highly satisfied and the less satisfied to judge their Heads/Principals differently from the average job satisfaction scorers.

To further clarify the result obtained from this test, χ^2 tests were carried out to compare these three categories of job satisfaction with leadership characteristics 1, 2, 3

and 4 (Qualities which were concerned with achievement of group goals) and characteristics 5 and 6 (qualities which are referred to as maintenance of group climate and relationships.

A 3 x 3 Contingency Table was compiled to compare the relationship between job satisfaction and ratings of judgments to 4 of the scores of leadership ratings. This Table is presented below :-

TABLE - XXIV

A 3 x 3 Contingency Table to verify the relationship between job satisfaction and Ratings 1 - 4 of the leadership ratings

1-4 Ratings	J o b S a t i s f a c t i o n			Total
	Below 67	Between 67 - 98	Above 98	
1 and 2	(93.60) 112 (.78)	(400.40) 384 (.62)	(78) 76 (.63)	572
3	(33.87) 21 (.14)	(144.9) 154 (.25)	(28.23) 32 (.27)	207
4 and 5	(16.50) 11 (.08)	(70.70) 78 (.73)	(13.77) 12 (.10)	101
T o t a l	114	616	120	880

Expected frequencies are presented in brackets above the observed frequencies. Proportions are presented in each cell in brackets below each observed frequency.

$$\chi^2 = 13.11, \text{ significant at } .05 \text{ level}$$

$$\chi^2_{.05} \text{ for 4 df} = 9.487$$

$$C = .12$$

The χ^2 computed above indicated again a significant value at the .05 level. Hence this indicates that high job satisfaction scores are related to the ratings/judgment of leadership characteristics. A Contingency Co-efficient of .12 again indicates a not very high level of relationship but a trend of the high and low job satisfaction scores (63% and 78% respectively) to confer higher judgments regarding their Heads/Principals' leadership qualities than those of the average job satisfaction scores (62%). A yet another χ^2 test was conducted to investigate the relationship between job satisfaction scores and judgment conferred on categories 5 and 6 of the leadership characteristics submitted for ratings.

A 3 x 3 Contingency Table was compiled as previously to investigate the relationship between job satisfaction and characteristics 5 and 6 submitted for rating/judgment.

Table XXV is presented on the next page with the result of the χ^2 test.

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TABLE - XXV

A 3 x 3 Contingency Table to investigate relationship between job satisfaction and rating (5, 6) of leadership characteristics

4 & 5 Ratings	J o b S a t i s f a c t i o n			Total
	Below 67	Between 67 - 98	Above 98	
1 and 2	(40.58) 40	(173.6) 168	(33.82) 40	248
3	(20.94) 21	(89.6) 94	(17.45) 13	128
4 and 5	(10.47) 11	(44.8) 46	(8.72) 7	64
T o t a l	72	308	60	440

Expected frequencies are presented in brackets above observed frequencies. Proportions are presented in each cell in brackets below each observed frequency .

$$\chi^2 = 3.07$$

$$\chi^2_{.05} \text{ for 4 df} = 9.448$$

The χ^2 test compared above revealed a value of 3.07 which was not significant at the .05 level. Hence it was concluded that no relationship is indicated between job satisfaction and the judgment of leadership characteristics relating to maintenance of good relationship in the group and stimulation towards self direction.

Hence the tests conducted to verify this Hypothesis No.VI indicate a partial confirmation of it. There is a relationship between job satisfaction of teachers and the perception of their Heads'/Principals' leadership qualities concerned with promoting group goals. However this relationship is not indicated in connection with leadership characteristics concerned with promoting group relationships and climate.

5.08: Summary of the Analysis and Interpretation :

The test of the various hypotheses reported above and findings of this study are briefly summarised below :-

1. The verification of the first hypothesis, to investigate the association between different varieties of management and job satisfaction indicated a significant relationship between these variables. Further it was revealed that Government school teachers generally tend to be more satisfied with their job than teachers of other varieties of schools. A closer examination revealed that Government school teachers express higher degrees of satisfaction with regard to the income and security in their jobs and the opportunities available for use of their skills and abilities. With regard to the interpersonal relationship encountered in their job, the private and Ad-hoc varieties of schools seem to be more satisfied in comparison with their Government and Deficit counterparts. With regard to the Work Environment available and Prestige and Status attached to their jobs there generally does not seem to be great difference of opinion between the different groups compared.

2. No significant differences between Male and Female teachers were revealed. Hence it may be concluded that Male teachers and Female teachers in this sample express similar degrees of satisfaction with their jobs.
3. Religion does not seem to be associated with job satisfaction as revealed by the data obtained in the sample.
4. Job satisfaction was not associated significantly with the age or the experience of the teachers in the sample under investigation.
5. A significant association was indicated between Job Satisfaction and Educational Qualification of the teachers under investigation. In testing the 5th hypothesis Post Graduate teachers generally seem to be more satisfied in comparison with their lesser qualified counterparts.
6. The hypothesis investigating the association between job satisfaction and the teachers' judgments (ratings) of the leadership characteristics of their Heads/Principals indicated a significant relationship only between job satisfaction and leadership characteristics related to fulfilment/achievement of group goals, i.e. teachers tend to be more satisfied if they perceive their Heads/Principals as being concerned with achievement of group goals and objectives. Job satisfaction was not found to be closely associated with teachers' perception of leadership characteristics of the Heads related to maintenance of group functions.

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C H A P T E R - V I

Conclusions And Suggestions For Further Studies

In this concluding chapter, an attempt will be made to comment on the extent to which this investigation has fulfilled the objectives stated, and to compare the principal findings with studies attempting investigations with similar problems. Also the limitations of this study will be stated and suggestions for further investigation will be recommended.

This study, as previously mentioned, stated five main objectives as its principal concerns. In order to facilitate these tasks a series of hypotheses were framed and data collected to verify them. Previous chapters have devoted themselves to presenting the data collected, the testing of hypotheses and the investigator's attempts to interpret the results of these tests. It is now proposed to draw some generalised conclusions as stated in the paragraph above.

1. With regard to the first objective of this study, the distribution of the measures of job satisfaction obtained in this study was presented in Table X of this report. This distribution revealed a Mean Job Satisfaction score of 82.5 which could be regarded as above a Neutral (neither very satisfied nor very dissatisfied) attitude towards one's job. It may be mentioned that if all respondents had responded with a rating of 4 to all the statements in the scale, they would have

obtained a score of about 79.2. Further calculations revealed that the observed frequency of scores did not differ significantly from a normal distribution (Table XII, Chapter IV). Hence it was concluded that a majority (70%) of the sample under investigation obtained Job Satisfaction scores within the range of Mean $\pm 1\sigma$. This trend is probably what is normally obtained when many human behavioural characteristics are subjected to measurement using unbiased samples.

2. The second objective - to investigate the association, if any, between Job Satisfaction and the type of administration (management) of the schools - was studied by the data procured to test the first hypothesis. Detailed and summarised findings and interpretations of tests of this hypothesis have been presented and discussed in earlier chapters. This study did identify a relationship between Job Satisfaction and the administering authority of the schools (Govt/Private etc.). This study found that teachers in Government schools in Shillong were more satisfied with their job than their counterparts in other varieties of schools. This finding agrees with that of Reddy¹, Anjaneyulu², Uniyal³, Pormal⁴ cited earlier.

¹A.V.R. Reddy, Ibid 34, Chapter II.

²B.S.K. Anjaneyulu, Ibid 26, Chapter II

³M.P. Uniyal, Ibid 29, Chapter II

⁴N.K. Pormal, Ibid 33, Chapter II

It is probable that Government school teachers are more satisfied in Shillong because of a feeling of greater security in their jobs and because of the income/salary that they obtain. They also report having more opportunities to make the best use of their skills and abilities.

3. The task related to fulfilling the third objective of the study, i.e. to investigate if differences in job satisfaction were associated with variables such as sex, religious backgrounds, age, qualification, experience and leadership was undertaken by tests of hypotheses Nos. II, III, IV, V, VI and VII. The detailed discussions of the tests of these have been reported earlier. It can generally be concluded that some of the findings of this study agree with those obtained elsewhere, while some do not. Brief conclusions with regard to these follow :

- a) As reported earlier, this study did not reveal any differences in Job Satisfaction between Men and Women teachers involved in this investigation. This finding seems to contradict that of many other studies, viz: Huppock⁵, Hulin and Smith⁶, Lavinga⁷, Singh⁸ and Rao⁹.

⁵R. Huppock, Ibid 4, Chapter II

⁶Hulin and Smith, Ibid 13, Chapter II

⁷K.U. Lavinga, Ibid 27, Chapter II

⁸H.L. Singh, Ibid 18, Chapter II

⁹S.N. Rao, Ibid 35, Chapter II

These studies, reviewed earlier, did find some differences in Job Satisfaction between these two sexes. However, the present study partially agrees with those studies of Reddy⁹ and Rao¹⁰. Reddy reported in his study that there was no significant difference between the level of job satisfaction of men and women teachers in Private and Zilla Parishad schools. Rao, as well, reported that there was no difference between female and male teachers with regard to job satisfaction of Primary School teachers of his sample.

- b) This study revealed that religious affiliations did not seem to be associated with Job Satisfaction.¹

This is a heartening finding especially as there are a considerable number of teachers in Meghalaya working in schools and institutions where they must be a minority. Unlike in other States where minority communities may often express attitudes of resentment at majority attitudes and practices and hence dissatisfaction in their jobs, this trend does not seem to prevail in Shillong.

- c) This study did not reveal any differences in Job Satisfaction which are attributable to, or associated with the age levels or experience of teachers comprising this sample under investigation. This finding

⁹A.V. Reddy, Ibid 34, Chapter II

¹⁰S.N. Rao, Ibid 35, Chapter II

seems to again contradict those in other studies abroad and in India viz., those by Huppock¹¹, Herzberg¹², Block¹³ and Pormal¹⁴. All these studies had indicated some association between Job Satisfaction and the age or experience of teachers. The study, however, agrees with previous findings of Gupta¹⁵ and Rao¹⁶. Gupta reported that age and teaching experience were not associated significantly with job satisfaction of Secondary School teachers of his sample. Rao's finding revealed that the length of service was not related to job satisfaction.

d) This study did indicate that teachers with Post Graduate Qualifications were more satisfied with their jobs than were their lesser Qualified counterparts.

This finding agrees with that of Huppock¹⁷ who also asserted that Job Satisfaction was associated with the Qualifications of a teacher. This is, as was contended earlier, probably explained by the fact that the more Qualified teachers command greater skill and expertise and as a result meet with greater success in their tasks. A whole host of psychological

¹¹R. Huppock, Ibid 4 Chapter II

¹²F. Herzberg, Ibid 5, Chapter II

¹³J.R. Block, Ibid 7 Chapter II

¹⁴N.K. Pormal, Ibid 33, Chapter II

¹⁵S.P. Gupta, Ibid 32, Chapter II

¹⁶S.N. Rao, Ibid 35, Chapter II

¹⁷R. Huppock, Ibid 4 Chapter II

literature is available which contends that success and achievement of goals and needs is related to satisfaction and consequently a minimisation of frustration.

e) A number of studies such as those of Chase¹⁸, Thomas¹⁹ Zander and Quinn²⁰ and Sharma and Gupta²¹ reviewed earlier, asserted that effective leadership was a factor in determining the Job Satisfaction of teachers. This study also found partial agreement with those previous findings. In this investigation, teachers who perceived their Heads/Principals as being concerned with the achievement of group goals and objectives seemed to score at a higher level on the Job Satisfaction Scale than others who perceived their Heads/Principals as rather low in this characteristic. However, there did not seem to be any difference between the high level of Job Satisfaction Scorers and those scoring at lower levels in their perceptions of their Heads/Principals for their concern with the maintenance of group functions, i.e., tasks like maintaining amenable group relationships. This characteristic again may be a topic for further study and investigation

⁸F.S. Chase, Ibid 21, Chapter II

⁹L. Thomas, Ibid 23, Chapter II

¹⁰A. Zandar and R. Quinn, Ibid 24, Chapter II

¹¹B. Sharma, and S.P. Gupta, Ibid 36, Chapter II

A few words are now devoted to comments on the limitations and strengths of this study. While this study did involve as many as 220 teachers drawn from 20 different schools, this did not involve more than half the schools registered by the Department of Public Instruction in Meghalaya. While there was every attempt made to select an unbiased sample, it may have been more profitable to have involved a larger sample. As it was, the sample seem to be rather heavily loaded with female teachers (N = 158, i.e. 72%) as against the Males (N = 62, i.e. 28%). In attempting to study the association between leadership characteristics and Job Satisfaction, the instruments used depended upon the perception of leadership characteristics by the teachers. While it is undeniable that such perceptions do have a bearing on the effectiveness of leadership it may be worthwhile in other studies to develop more direct methods of assessing leadership functions and effectiveness. Having said this it is submitted that the instruments used in this study to assess leadership characteristics and Job Satisfaction were reliable devices. The latter may probably be found useful in any further studies in this domain.

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A P P E N D I X - A

A List Of Secondary Schools Chosen For The Sample

Sl. No.	Name of School	Management	Locality
1.	Laitumkhrach Presbyterian High School	Deficit	Laitumkhrach
2.	Laban Khasi High School	Deficit	Laban
3.	Mozo Modern High School	Ad-hoc	Laitumkhrach
4.	Pino Mount High School	Government	Laban
5.	Malki Presbyterian High School	Ad-hoc	Malki
6.	Rilbong High School	Ad-hoc	Rilbong
7.	Brookside High School	Private	Laitumkhrach
8.	Loreto High School	Private	Laitumkhrach
9.	Lumparing Vidyapith High School	Deficit	Lumparing
10.	Budha Vidya Niketan High School	Ad-hoc	Polo, Shillong-1
11.	Mawkhar Christian High School	Deficit	Mawkhar
12.	B.K. Bajoria High School	Private	Laitumkhrach
13.	Government Girls' High School	Government	Police Bazar
14.	Mawprem Modern High School	Deficit	Mawprem
15.	Seven Set High School	Private	Malki
16.	St. Joseph High School	Deficit	Jaiaw
17.	Gorkha Pathshala High School	Ad-hoc	Mawprem
18.	Rai Bahadur Anupchand	Deficit	Police Bazar
19.	Government Boys' High School	Government	Jaiaw
20.	St. Anthony's High School	Deficit	Laitumkhrach

A P P E N D I X - B

M. Nongrum
Research Fellow

Department of
Educational Research And Studies
N.E.H.U., New Campus
Shillong - 793008

Dear Sir,

In connection with my Research Study I need some information about the needs (factors) involved in the Job Satisfaction of teachers. Your assistance is requested in this task. Please read through the list of needs (on page 1) accompanying this letter and then compare them with each other as per instructions given (on page 2) carrying a paired-comparison questionnaire. I would be grateful if you could kindly return it to me after completion.

Thanking you.

Yours sincerely,

(Medalin Nongrum)

Enclos:- As above

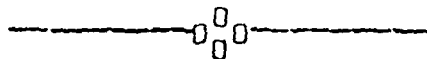
List Of Some Needs Involved In Job Satisfaction

Ten needs whose fulfillment, according to other studies, are involved in an employee's feelings of Satisfaction with his/her work, are listed below. Please read through this list and their specifications (given in brackets). After that please turn to page 2, read the instructions and indicate your judgment when comparing each need with the other.

- A. PRESTIGE AND STATUS : (The fulfillment of this need would depend upon an individual's own judgment regarding the worth or value of his profession in comparison with other occupations and the status and prestige accorded to it by others).
- B. RECOGNITION AND APPROBATION : (Fulfillment of this need is exemplified by the recognition accorded to a teacher's work and qualities by Principals/Education Officers/Inspectors/Colleagues when the occasion demands it)
- C. Interpersonal Relationships : (The degree of liking for other members of your School Staff, the degree of informality and congeniality in interpersonal relationships are involved in the satisfaction of this need).
- D. MASTERY AND ACHIEVEMENT : (This need arises out of the skill and Mastery in one's work subject or activity and would be fulfilled when certain goals and objectives pertaining to these spheres are achieved)
- E. INCOME (SALARY) AND SECURITY : (Satisfaction of this need would involve a feeling of assurance regarding a regular income and confirmation and permanency of service conditions.

List of needs involved in Job Satisfaction (Contd.)

- F. LEADERSHIP AND SUPERVISION : (Fulfillment of this need would depend upon the type of leadership a teacher works under, the degree to which it is of the democratic, considerate, participative type as opposed to the autocratic, authoritarian and directive variety).
- G. SUITABLE/SATISFACTORY WORK ENVIRONMENT : (This need is satisfied when suitable physical and administrative conditions equipment and facilities are available for the efficient performance of one's duties).
- H. OPPORTUNITIES FOR PROMOTION AND ADVANCEMENT : (Fulfillment of such need requires opportunities for promotion in one's occupation, e.g. chances to become a Head/Principal as well as possibilities for professional growth, e.g. opportunities for further training courses etc.).
- I. INDEPENDENCE : (This need is fulfilled when opportunities exist to direct one's own behaviour to a considerable extent rather than being constantly subjected to the directions of others).
- J. AUTHORITY AND CONTROL : (This need is fulfilled by opportunities to exercise one's power to direct or control others - Colleagues or students).



PAIRED COMPARISON QUESTIONNAIRE

Instructions : You are now requested to compare each need, listed in the previous pages, with the other in accordance with the schedule given below bearing in mind your own school situation. Please indicate which need in your opinion is more important in each comparison. There is no such thing as a right or wrong judgment. It is your opinion that matters. Please refer to the list on Pages 1-2 if you feel it necessary while making your judgment.

Example : In comparing the need for Recognition (B) with that of Income (Salary) and Security (E) I might judge the latter as a more important need requiring fulfillment and hence I would indicate my judgment by writing 'E' in the brackets at the end of the comparison question thus :

Recognition (B) Vs. Income (Salary) and Security (E)? (E)

Please follow this procedure and indicate your judgments in the comparisons given in the schedule below.

1. Interpersonal Relationships (C) Vs. Opportunities for Promotion And Advancement (H) ? ()
2. Mastery and Achievement (D) Vs. Independence (I)? ()
3. Recognition (B) Vs Leadership (F) ? ()
4. Interpersonal Relationships (C) Vs. Work Environment (G) ? ()
5. Leadership (F) Vs Independence (I) ? ()
6. Income (Salary) and Security (E) Vs Leadership(F)? ()
7. Interpersonal Relationships (C) Vs Prestige and Status (A) ? ()

PAIRED COMPARISONS QUESTIONNAIRE (Contd.)

8. Opportunities for Promotion and Advancement (H) Vs Independence (I) ? (I)
9. Recognition (B) Vs Opportunities for Promotion and Advancement (H) ? (II)
10. Leadership (F) Vs Satisfactory Work Environment (G)? (III)
11. Recognition (B) Vs Authority and Control (J) ? (IV)
12. Recognition (B) Vs Income and Security (E) ? (V)
13. Mastery and Achievement (D) Vs Authority and Control (J) ? (VI)
14. Recognition (B) Vs Mastery and Achievement (D) ? (VII)
15. Income and Security (E) Vs Satisfactory Work Environment (G)? (VIII)
16. Mastery and Achievement (D) Vs Suitable Work Environment (G) ? (IX)
17. Interpersonal Relationship (C) Vs Independence (I)? (X)
18. Prestige and Status (A) Vs Income and Security (E) ? (XI)
19. Opportunities for Promotion and Advancement (H) Vs Authority and Control (J) ? (XII)
20. Recognition (B) Vs Prestige and Status (A) ? (XIII)
21. Prestige and Status (A) Vs Leadership and Supervision (F) ? (XIV)
22. Interpersonal Relationships (C) Vs Authority and Control (J)? (XV)
23. Interpersonal Relationships (C) Vs Income and Security (E) ? (XVI)

24. Recognition (B) Vs Interpersonal Relationships (C)? ()
25. Interpersonal Relationship (C) Vs Mastery and Achievement (D) ? ()
26. Prestige and Status (A) Vs Opportunities for Promotion and Advancement (H) ? ()
27. Leadership and Supervision (F) Vs Opportunities for Promotion and Advancement (H) ? ()
28. Income and Security (E) Vs Independence (I) ? ()
29. Satisfactory Work Environment (G) Vs Authority and Control (J)? ()
30. Income and Security (E) Vs Opportunities for Promotion and Advancement (H) ? ()
31. Mastery and Achievement (D) Vs Opportunities for Promotion and Advancement (H) ? ()
32. Suitable Work Environment (G) Vs Opportunities for Promotion and Advancement (H) ? ()
33. Mastery and Achievement (D) Vs Income and Security (E) ? ()
34. Mastery and Achievement (D) Vs Prestige and Status(A) ? ()
35. Recognition (B) Vs Independence (I) ? ()
36. Prestige and Status (A) Vs Satisfactory Work Environment (G) ? ()
37. Independence (I) Vs Authority and Control (J) ? ()
38. Mastery and Achievement (D) Vs Leadership and Control (J) ? ()
39. Income and Security (E) Vs Authority and Control(J)? ()

APPENDIX 'C' (Contd.)

32. There are good chances in my job for a promotion and also opportunities to acquire better qualifications and skills (1, 2, 3, 4, 5.)
33. The equipment and facilities provided for the teachers in my schools leaves much to be desired (1, 2, 3, 4, 5.
34. At the place where I work, there are ample opportunities for making friends and developing free, informal relationship with my colleagues (1, 2, 3, 4, 5.)
35. The work environment in my school in terms of buildings and other facilities is satisfactory in some respects but not so good in some others (1, 2, 3, 4, 5.)
36. There is ample opportunity in my job to use my discretion initiative or inventiveness (1, 2, 3, 4, 5.)
37. In my judgment, my job is as worthy as any other in matters of prestige and status (1, 2, 3, 4, 5.)
38. Opportunities for promotion and professional growth are neither wholly absent nor are they very likely in my job (1, 2, 3, 4, 5.)
39. There are some opportunities for making friends with my colleagues at work, but there are some obstacles too in this sphere (1, 2, 3, 4, 5.)
40. A desire to obtain participation and co-operation seems to be the policy of my superiors in my job (1, 2, 3, 4, 5.)
41. The probability for promotion to a Principal's Post in my job for acquiring better qualifications is very low (1, 2, 3, 4, 5.)

APPENDIX 'C' (Contd.)

42. There is very little or no opportunity in my job for me to use my discretion, initiative or inventiveness
(1, 2, 3, 4, 5.)
43. The salary I receive in my job and the assurance of its permanency do satisfy me (1, 2, 3, 4, 5.)
44. Others in my profession and the public consider my job to have much less prestige and status attached to it than other teaching jobs. (1, 2, 3, 4, 5.)
45. My job is considered to be less prestigious and to have a lesser status than other similar jobs (1, 2, 3, 4, 5.)
46. In my job the possibilities for promotion to a Headmaster's or a Principal's post or for acquiring better qualifications are rather few (1, 2, 3, 4, 5.)
47. My job affords me considerable opportunities to exercise power and authority over others, both students and colleagues (1, 2, 3, 4, 5.)
48. The desire on the part of my supervisors, to obtain participation and co-operation is absent in my job
(1, 2, 3, 4, 5.)
49. The work environment and the equipment and facilities obtainable in my job are poor and very inadequate
(1, 2, 3, 4, 5.)
50. The salary I receive in my job and the conditions of security and stability in my job are very adequate
(1, 2, 3, 4, 5.)

A P P E N D I X - 'D'

The following is a list of leadership characteristics. Kindly read through the list and rank them from 1 to 10, according to what you consider to be the most important characteristic that a Principal/Head of an educational Institution should possess. After completion kindly return it to me.

Thanking you.

Yours faithfully,

Medalin Nongrum
Research Scholar
Department of Education,
N.E.H.U., Shillong

<u>Characteristics</u>	<u>Rank.</u>
1. Initiates action	()
2. Helps to focus members' attention on group goals	()
3. Clarifies problems	()
4. Makes information available to all members	()
5. Evaluates quality of work done	()
6. Helps to maintain good relationships in the group	()
7. Settles disputes between members	()
8. Provides encouragement when required	()
9. Stimulates self-direction	()
10. Increases interdependence among members.	()

APPENDIX - E

M. Nongrum,
Research Scholar.

Department of Educational
Research and Studies,
N.E.H.U., Shillong.

Dear Teacher,

I am conducting a study on "Job Satisfaction of School Teachers in Shillong" in connection with a research Project. I therefore request you to kindly help me by giving your judgements to the Statements in Page 1 and Page 2. Your responses will be treated with the utmost confidence and used solely for the purpose of my investigation.

Thanking you.

Yours sincerely,


(Medalin Nongrum)

Name: ~~XXXXXXXXXX~~ Age: 32 Sex: Female Qualification: L.A. B.Ed.
 Experience as a teacher 5^{yr} years. Religion: Christian

The twelve statements given below express opinions about certain need which most teachers seek to satisfy in their work at school. Bearing in mind the situation in your school, please indicate your degree of agreement/dis-agreement by placing a "✓" mark in one of the cells following each statement. A "✓" in cell "I" would indicate very strong agreement with the statement while placing the mark in "VII" would mean very strong dis-agreement, "IV" represents an undecided or neutral attitude, "II" and "III" represents lesser degrees of agreement than "I" while "V" and "VI" represent lesser degrees of dis-agreement than "VII".

$33.9 + 34.4 = 68.3$

- 4.2 1. This is a very poorly paid job and the condition of security and stability in it are just as bad. 2.1
 - 4.8 2. My school provides excellent equipment and facilities for the performance of my duties efficiently. 1.6
 - 8.0 3. Others in my profession and the public consider my job to have much less prestige and status attached to it than other teaching jobs. 1.6
 - 6.4 4. Work at my school does enable teachers to use whatever aptitudes, skills and abilities they may possess. 1.6
 - 3.0 5. The probability of promotion to a Principal's post in my job or for acquiring better qualification is very low. 1.5
 - 7.5 6. My job does give me chances to be friendly with my colleagues and to work in an informal atmosphere. 1.5
 - 6.3 7. The salary I receive in my job and the condition of security and stability are very adequate. 2.1
 - 4.8 8. The work environment, equipment and facilities obtained in my job are poor and very in-adequate. 1.6
 - 8.0 9. In my judgment my job is as worthy as any other in matters of prestige and status. 1.6
 - 4.8 10. Circumstances requiring the involvement of any special skills or abilities that a teacher may possess are rare in our school. 1.6
 - 3.0 11. There are good chances in my job for a promotion and also opportunities to acquire better qualifications and skills. 1.5
 - 7.5 12. An informal atmosphere at work and the opportunity for developing friendships with my colleagues are quite unknown in my job. 1.5
- 68.3 24.4

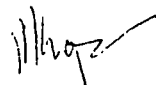
I	II	III	IV	V	VI	VII
Very strong agreement	Strong agreement	Agreement	Neutral of undecided	Dis-agreement	Strong dis-agreement	Very strong dis-agreement
1	(2)	3	4	5	6	7
7	6	5	4	(3)	2	1
1	2	3	4	(5)	6	7
7	6	5	(4)	3	2	1
1	(2)	3	4	5	6	7
7	6	(5)	4	3	2	1
7	6	5	4	(3)	2	1
1	2	(3)	4	5	6	7
7	6	(5)	4	3	2	1
1	2	(3)	4	5	6	7
7	6	5	4	3	(2)	1
1	2	3	4	(5)	6	7

Dear Teacher,

In continuation of the Job Satisfaction Scale which you kindly responded to, I am herewith submitting another six statements regarding leadership qualities (Characteristics) of Principal/ Heads of Schools. I would be grateful if you could read through the statements and provide your judgments of your Head/ Principal on a five point Scale. A check of "1" would indicate that your Principal/ Head would rate very high on this quality, while a rating of "5" would indicate the lowest rating. The intermediate points between 1 & 5 would correspondingly indicate lower ratings than the highest i.e. a rating of "1". This information, will be treated with the strictest of confidence and used only for my research work.

Thanking you.

Yours sincerely



Medalin Nongrum

QUALITIES (Characteristics)

1, 2, 2, 3, 3, 3
6-8

1. Initiates action (1, 2, 3, 4, 5).
2. Helps to focus members attention on group goals (1, 2, 3, 4, 5).
3. Clarifies problems (1, 2, 3, 4, 5).
4. Makes information available to all members (1, 2, 3, 4, 5).
5. Helps to maintain good relationship in the group (1, 2, 3, 4, 5).
6. Stimulates self direction (1, 2, 3, 4, 5).

Kindly fill in your Bio-data below:-

Name ~~Medalin Nongrum~~ _____ Age _____
Sex _____ Qualification _____
Experience as a teacher _____ Year Religion _____

A P P E N D I X - 'F'

Calculation of the Product Moment Correlation Between two halves of Scores on Job Satisfaction Scale (Whole sample N = 220)

2nd Half	1st Half						Total fy	y'	fy'	fy' ²	x'y'
	10-19	20-29	30-39	40-49	50-59	60-69					
60-69					2 4 8		4	2	3	16	8
50-59				25	(1) 8 8	(2) 4 8	37	1	37	37	16
40-49		2	-17	61	10	1	91	0	0	0	0
30-39	(3) 3 9	(2) 16 32	(1) 40 40	18	(-1) 1 -1		78	-1	-78	78	80
20-29		(4) 4 16	(2) 6 12				10	-2	-20	40	28
Total fx'	3	22	63	104	23	5	220	$\sum fy' =$ -53	$\sum fy'^2 =$ 171	$\sum x'y' =$ 132	
x'	-3	-2	-1	0	1	2					
fx'	-9	-44	-63	0	23	10	$\sum fx' =$ -73				
fx' ²	+27	88	63	0	23	40	$\sum fx'^2 =$ 241				

$$r = \frac{\sum xy' - \left(\frac{\sum x'}{N} \times \frac{\sum y'}{N} \right)}{\sigma_x \sigma_y}$$

$$= \frac{\frac{132}{220} - (.33 \times .24)}{.99 \times .85}$$

$$= \frac{.6 - .0792}{.8415} = \frac{.5208}{.8415}$$

$$= .6188 = .62$$

$$* \text{ Correction } r \text{ (whole test)} = \frac{2 \times r(\text{half test})}{1 + r(\text{half test})}$$

$$= \frac{2 \times .62}{1 + .62}$$

$$= \frac{1.32}{1.62}$$

$$= .8148$$

$$= .81$$

$$\sigma_x = \sqrt{\frac{241}{220} - \left(\frac{73}{220}\right)^2}$$

$$= \sqrt{1.0955 - (-.33)^2}$$

$$= \sqrt{1.0955 - .1089}$$

$$= \sqrt{.9866}$$

$$= .99$$

$$\sigma_y = \sqrt{\frac{171}{220} - \left(\frac{53}{220}\right)^2}$$

$$= \sqrt{.7773 - (-.24)^2}$$

$$= \sqrt{.7773 - .0576}$$

$$= \sqrt{.7197}$$

$$= .85$$

* Spearman Brown formula for correction of a Split half
 r. H.E. Gerret, Testing for Teachers, Eurasia Publishing
 House New Delhi, 1959 (p- 224).