CHAPTER III

METHODOLOGY

The present chapter contains the problem statement, assumptions, objectives, hypotheses, sample, research design, variables, tools of data collection, procedure and methods of statistical analysis.

PROBLEM STATEMENT

The problem under study can be stated as follows:-
Perceptions of leader-subordinate behaviour, gender stereotypes and glass ceiling relate differentially among male and female educational administrators and teachers.

ASSUMPTION 1

Administrators and teachers in the context of schools form a team which engages in the process of debate regarding the norms and objectives of the school. Leadership skills of administrators and teachers play a significant role in overall effective functioning of the school. It helps to visualise, share and implement agreed plans for the development of the school and for the part played in that process by identifying individuals is of uttermost importance. Teams within schools need to be carefully managed as tasks within the school need to be shared and responsibilities distributed. Teamwork should be based on good professional work relationships between administrators and teachers.
Each staff team, whether it is the whole staff group working together or a smaller group of colleagues with a shared function, have to develop working relationship through leader-subordinate behaviour, which are consistent with the overall smooth functioning of the school through effective leadership skills. These sub relationships get negotiated within the group. Once they are established, they need to be managed. Thus, building and managing staff teams are the prime responsibility of administrators. It was also an important responsibility of every individual teacher. Thus, although professional expertise may be the basis of such leadership, the leadership function can only be carried out to its maximum effect if the staff team is consciously built and effectively managed. According to Powney (1991) within organisational systems such as schools, requirements of human memberships necessities leadership skills to be used extensively.

Educational administrators must articulate their behaviour such that it ensures smooth functioning of the school through a visionary approach. Vision must be communicated in a way which ensures commitment among members of the school. According to Reskin and Roos (1994), leadership skills are important for any organisation to maintain cohesion and perform effectively. Team building in schools and their effective administration is very crucial. It may thus be assumed that educational administrators may significantly differ from teachers in their perceptions of leadership skills.

OBJECTIVE 1

To find out the differences between educational administrators and teachers on perceptions of their leadership skills.
HYPOTHESIS 1

Administrators and Teachers will significantly differ on dimensions of leadership skills.

ASSUMPTION 2

The school as a system requires men and women to exercise their leadership skills. Men and women are equipped differently to use these skills. A number of qualities, both human and educational, differentiate the way women and men function within school environment. A female culture of educational work and leadership skills exists with distinctive characteristics than those of males. These characteristics include greater interpersonal and care sensitivities, a strong focus on the quality of teaching and relationships within schools, and of the use of leadership skills. Lortie, (1985) in her study found that women choose teaching because of their desire to serve others or to nurture children. Whereas, men have different sets of expectations from working in schools. They felt they could exercise their power and control over others. The fulfilment of these roles are a function of a gendered society and how men and women are socialised to pursue their work differently. David (1989) found that women and men have different leadership skills due to different socialisation patterns and life experiences. This reflects in the ways they use their leadership skills in schools. Miller (1992) found that women have surmounted the hurdles within schools by using their leadership skills extensively. Smith (1995) found that for women to be considered as capable or better than men they have to be tough in their approach towards work and use their leadership skills extensively. Societal expectations also have helped in the varied roles expected of both men and women in the stereotypical definitions of leadership in terms of masculine traits and behaviour. Schools as
organisations are seen as a predominantly female enclave in teaching whereas administration is considered the preview of men.

With the changing societal patterns more women are achieving leadership roles now more than ever before. Women feel that the skills they are equipped with, both innate as well as learnt, are apt for taking on leadership roles. Evetts (1991) her study found that gender differences in the achievement of leadership posts within schools continues to remain high. It may thus be assumed that males and females may be different on dimensions of leadership skills.

OBJECTIVE 2

To find out the differences between males and females on their perceptions of leadership skills.

HYPOTHESIS 2

Males and Females will significantly differ on dimensions of leadership skills.

ASSUMPTION 3

Within the school context men have outperformed women in attaining administrative positions the world over. Fiedler (1967) considered the leader to be the individual in a group, who was given the formal authority of leading. Men being deemed as capable of such tasks were chosen as administrative heads and women relegated to teaching positions in schools. Within the classroom context women may be better leaders than men as it is assumed that they are better at caring for children whereas men are better as administrators as the job requires them to liaison between staff, students.
and officials of the education department. Snodgrass (1989), suggested that women as a subordinate group had internalised self-sacrificing and expressive values and were expected to seek occupational roles which stressed the aspect of service and co-operation such as in the teaching profession. Eagly (1995, 1997) in her study found that women occupy positions that require a person to be attentive to others, to be understanding and empathic, in short to be communal. In contrast, men occupy more demanding positions in schools such as administration. Positions that call for a agentic orientation. The female world does exist in schools, but goes mostly unnoticed. According to Orga (1993) educational administration, like administration elsewhere, is largely done by men and is therefore defined by men. Such a definition may be very restrictive, at best it may be inappropriate for women; at worst it is hostile to the fostering of leadership qualities which may represent more effective ways of managing schools by women.

According to Bolman (1993) effective school leadership relates to leadership styles that are more democratic, collegial, open, consultative, and open to growth for both women and men equally, as their are differences in their approach to educational administration. It may be assumed that female and male teachers and administrators may differ significantly on leadership skills.

**OBJECTIVE 3**

To find out the significant differences between female and male administrators and female and male teachers on leadership skills.
HYPOTHESIS 3

Their will be significant interaction effects of Gender and Designation on dimensions of leadership skills among female and male administrators and female and male teachers.

ASSUMPTION 4

Gender division of labour occurs in all societies and results in sex role perceptions. Although the specific tasks may differ by gender, often male tasks are more valued than female ones. Not surprisingly, male dominance explains much of the source of inequality in education. This dominance is deeply embedded as in both social institutions such as schools as well as in individuals. A cultural bias toward leadership by males has been well documented. Burns noted that “femininity” has been stereotyped as dependent, submissive and conforming, and hence women have been seen as lacking in leadership qualities. The male bias is reflected in the false conception of leadership as mere control or command. Women administrators and teachers reported problems of coping with a mainly male peer group and its expectations of them to be one of them i.e. males Spencer (1987). The characteristics needed to be a successful administrator were stereotyped as masculine. Women thus felt that the more they conformed to the “masculine” stereotype, and were also perceived by their male colleagues as successful, they were also seen as “unfeminine” and “unnatural women”. These interpretations of women’s situation in educational institutions support the view of the dominance of a masculine ethos in shaping work opportunities.
OBJECTIVE 4

To examine the significant differences on sex role perceptions among female and male administrators and teachers.

HYPOTHESIS 4

There will be significant main and interaction effects on sex role perceptions among female and male administrators and teachers.

ASSUMPTION 5

Within schools as well as in the broader context of society stereotypical forms of behaviour are seen. Socialisation within the family and gender roles within society reinforce sex role perceptions. Teaching is viewed as a feminine profession and administration as masculine each needing different sets of skills to be used extensively. Acker (1991) reported that women principals in her study that they were expected to conform to masculine traits expected as a result of being in administrative positions. As a result to successfully gain administrative positions masculine attributes had to be conformed to. It may be assumed that administrators and teachers would differ significantly on their sex role perceptions.

OBJECTIVE 5

To examine the differences among administrators and teachers on different dimensions of sex role perceptions.
HYPOTHESIS 5

Administrators and teachers will significantly differ on different dimensions of sex role perceptions.

ASSUMPTION 6

The increased presence of women in the workforce has raised awareness about career expectations and the traditional roles of men and women. The issue of career advancement has emerged as a central concern, particularly the issue whether leadership skills determines glass ceiling within schools. Increasing proportions of women are holding administrative jobs in schools yet even though the numbers have increased mobility to top level jobs in schools are found blocked, frequently described as impeded by a "glass ceiling" (Morgan, 1998).

Traditionally, a career has been characterised as "a pre-established total pattern of organised professional activity, with upward movement through recognised preparatory stages, and advancement based on merit and bearing honour (Bledstein, 1986)". Upward movement through the hierarchy and commitment to career demonstrates traditional definition of career patterns. As most teachers do not move through the traditional hierarchy and also because many teachers remain in the same professional position for years. Many women make clear choices that they do not wish to follow the same path as men, and that they have reasons for choosing other routes. Very little research has been done to study the career paths of female and male teachers.
Hansot and Tyack (1981) give explanations which limit career advancement. These include, socialisation patterns and organisational structure that perpetuates the glass ceiling and shapes the behaviour of its members. Women may behave in self-limiting ways not only because they were socialised as females but because they were locked into low-power, low-visibility, dead-end jobs of teaching (Hansot and Tyack, 1981). Whereas, according to Carlson and Schmuck (1981) success in teaching may not be measured in moving from job to job in a vertical continuum but in the quality of job held.

An alternative way to view teacher's achievement in educational careers lies in the organisational structure framework. According to Kanter (1977), it was neither gender nor an individual's personal characteristics but organisational structure that limits the opportunities of women and men. Kanter examined how "opportunity, power and relative numbers have the potential to explain a large number of discrete individual responses to organisations" (1977, p.246). Kanter points out that "opportunity structures shape behaviour in such a way that they confirm their own prophecies" (1977, p. 158). Thus, people who have very little opportunity to move up the hierarchy (teachers) and are disengaged have depressed aspirations. Those people who are more mobile within the hierarchy, however "tend to develop attitudes and values that impel them further along the track; work commitment high aspirations, upward orientations and upward mobility". (Kanter, 1977, p.158).

Jones (1990) study of men and women teachers’ attitudes to promotion found some differences in their expectations of themselves and others as leaders. Based on what they said rather than what they did, both saw men and women as capable of career advancement. However, while men saw themselves as more innovative than women in introducing change, women
teachers did not see their male colleagues in the same way. Women administrators preferred to use staff expertise in bringing about change, men drew on adviser support and expertise.

Women encountered invisibility (being treated as if they were juniors) and being stereotyped. Studies show that once organisational or societal barriers are removed, women begin applying for positions in school administration. Edson (1981) determined that as positions opened, as they were encouraged to apply, and as they saw other women achieving, women began aspiring for administrative jobs. It is assumed that female and male teachers and administrators may differ on glass ceiling.

OBJECTIVE 6

To find out the differences between female and male administrators and teachers on glass ceiling.

HYPOTHESIS 6

There will be significant differences on glass ceiling among female and male administrators and teachers.

ASSUMPTIONS 7 and 8

Working in different types of environments with different groups of people give rise to different perceptions due to different types of interactions between leaders and subordinates. School composition being different in girls, boys, and coeducational schools in terms of gender of both staff and students there arise differences in experiences of individual
perceptions. This may give rise to different ways of organisational culture and ethos within schools, each having its own characteristic structure.

Tibbets (1989) also found that lack of job growth depressed teachers. Further evidence is supplied by Coffer and Ekstrom (1989) who found that lowered aspirations was really a response to lack of opportunity. Thus Kanter's assertion that "things may become evaluated as less desirable as they become less likely" is crucial to understanding teachers aspiration level. What is called women's lack of aspiration may be a effective mental conditioning through coping strategies, and lesser use of leadership skills. It is assumed that perceptions of leadership skills, glass ceiling and demographic variables of administrators and teachers and females and males may relate differentially to each other.

**OBJECTIVE 7**

To examine the relationship among leadership skills, sex role perceptions, demographic variables and glass ceiling among administrators and teachers.

**HYPOTHESIS 7**

There would be significant relationship among leadership skills, glass ceiling and demographic variables among Administrators and Teachers.

**OBJECTIVE 8**

To examine the relationship among leadership skills, sex role perceptions, demographic variables and glass ceiling among females and males.
HYPOTHESIS 8

There would be significant relationship between leadership skills, glass ceiling and demographic variables on different sex role perceptions among Females and Males.

ASSUMPTION 9

Centuries old patterns of male dominance have solidified a number of beliefs about feminine and masculine traits. Those individuals who are assumed to have more stereotypical feminine traits were assumed to be incapable of being in carrying out leadership roles as ranks compared to those having the masculine traits of leadership. Sex role perceptions greatly modify peoples thinking and how they feel about career advancement. It is assumed that the pattern of relationship among leadership skills, glass ceiling and demographic variables will vary among feminine, masculine, androgynous and undifferentiated groups.

OBJECTIVE 9

To find out the pattern of relationship among leadership skills, glass ceiling and demographic variables for feminine, masculine, androgynous and undifferentiated groups.

HYPOTHESIS 9

To examine the pattern of relationship among leadership skills, glass ceiling and demographic variables for feminine, masculine, androgynous and undifferentiated groups.
ASSUMPTION 10

Attention on entry into schools “mask’s” the fact that the large numbers who cluster at the bottom of the hierarchy in schools have lower earning capacity, authority, and advancement potential (Davies-Netzley, 1998: p.339). Researchers have not given adequate attention to this burning issue and to the question as to why progress into administrative ranks in schools is so slow, or for most non-existent. The role of leadership skills helps in explaining occupational status and achievement which includes studying the characteristics of why glass ceiling and particularly negative attitudes that support gender discrimination. These often help to keep individuals out of educational settings which support authority and leadership. It may be assumed that leadership skills and demographic variables may predict glass ceiling among educational administrators and teachers.

OBJECTIVE 10

To predict glass ceiling from leadership skills and demographic variables for female and male administrators and teachers.

HYPOTHESIS 10

Leadership skills and demographic variables of administrators and teachers will significantly predict their perceptions of glass ceiling.

SAMPLING

To study leader-subordinate behaviour, gender stereotypes and glass ceiling among administrators and teachers, the sample was identified through a
two stage procedure namely (1) Selection of Schools (2) Selection of Respondents using random sampling technique.

(1) Selection of Schools: The sample was taken from government schools of Delhi. The characteristic feature of these schools is that they were run by the state government, and were localised almost in all residential colonies of the city and basically served as neighbourhood schools. The three categories of schools chosen was based on school type; namely girls, boys and co-educational schools. Schools were chosen from all over Delhi randomly to get an even distribution in terms of student composition, class size, number of teachers per school. All the schools chosen were senior secondary schools.

(2) Selection of Sample: The sample of the study undertaken consisted of female and male educational administrators and teachers. From a total of 180 government senior secondary schools, 20 schools were chosen randomly out of which 8 were girls schools, 8 were boys schools and 4 were coeducational schools. From each school the principal and vice-principal were taken as educational administrators and 10 teachers in the school having at least more than five years of teaching experience so that the perceptions of leader-subordinate behaviour, gender stereotypes and glass ceiling could be measured. The total number of administrators were 40, out of which 20 were female and an equal number of them were male. Out of a total of 200 teachers, 125 were females and 75 males. A fair representation was attempted, even though the number remained unequal.

RESEARCH DESIGN

In order to find the differences between male and female administrators and teachers on leader-subordinate behaviour, gender
stereotypes and glass ceiling effect a 2 X 2 factorial design taking Designation (educational administrators and teachers) and Gender (female and male) as two factors were used.

VARIABLES

The following variables were used

Matching Variables

Designation (Administrators and Teachers)
Gender (Female and Male)

Demographic Variables
Age
Type of School (Girls, Boys and Coeducational)
Years of Teaching Experience
Years of Administrative Experience
Educational Qualifications

Measured Variables
Leader-Subordinate Behaviour
Gender Stereotypes
Glass Ceiling

Operational Definitions :-

Leader-Subordinate Behaviour reflected the ways in which leaders and subordinates interacted in their work settings within schools. This was
measured in the present study through the leadership skills that administrators and teachers emphasised and used in their work settings.

**Gender Stereotypes** were generalisations about persons based on category membership. They were beliefs that all members of a particular sex group have the same stereotypical qualities.

**Glass Ceiling** was used to describe the artificial barriers based on attitudinal and organisational bias, that prevented qualified individuals from advancing within their organisations and reaching their fullest potential.

**Age** was defined as the chronological age of the respondent.

**Type of School** was categorised on the basis of student composition namely boys, girls and coeducational.

**Years of Teaching Experience** was defined as the total number of years the respondent had taught in their teaching career.

**Years of Administrative Experience** was defined as the total number of years vice-principals and principals had been in an administrative position.

**Educational Experience** was defined as the total professional qualifications each respondent had acquired.

**TOOLS FOR MEASUREMENT**

Four questionnaires were used to measure leadership skills, sex role perceptions, glass ceiling and demographic variables.
Leadership Competencies Scale: A modified version of Self-Assessment of Leadership Competencies Scale (developed by Ragland and Hill, 1994) had been used in this study to measure educational administrators and teachers perceptions of leadership skills in school settings. The original scale comprised of 111 statements related to various leadership competencies clubbed into eighteen dimensions. However, out of 111 statements 50 items were chosen in consultation with experts keeping in mind relevant statements pertaining to Indian conditions. Statements which were found to be repetitive or overlapping overlapped or having vocabulary or comprehension problem in the Indian context were excluded. Finally a list of 50 statements were taken after pretesting the revised scale on a sample of 10 administrators and 10 teachers. Principal factor component analysis was done on the fifty leadership skill statements. On a sample of 40 administrators and 200 teachers. This resulted in the emergence of 13 dimensions, which were appropriately grouped and named.

Bem's Sex Role Inventory was designed to implement empirical research on psychological androgyny. It contains sixty personality characteristics. Twenty of the characteristics are stereotypically feminine (e.g., affectionate, gentle, understanding, sensitive to the needs of others) and twenty are stereotypically masculine (e.g., ambitious, self reliant, independent, assertive), and the rest twenty characteristics served as filler items (e.g., truthful, happy, conceited).

Glass Ceiling Scenario and Related Questions: The glass ceiling prediction is focused on lack of career opportunities and was measured by constructing a scenario of a school situation and three statements having a four choice response format that had to be rated. The glass ceiling hypothesis was operationalised by a three item career opportunity Likert
Scale: "My future with this school looks bright", "My future with this school looks less bright than it was five years ago (reverse coded) and "the chances of promotion are good".

Demographic Characteristics Scale: This scale consisted of seven questions to fill in the demographic characteristics of the respondents such as name, age, name of school, type of school, years of teaching experience, years of administrative experience and educational qualifications.

FACTORS OF LEADERSHIP COMPETENCIES SCALE

The principal component solution and its varimax rotation resulted in the emergence of thirteen factors. The criteria of eigen value of 1 was used. The unrotated and rotated matrices is shown in Tables 3.1. Factor loadings above .30 is included.

Table 3.1 Unrotated Factor Matrix on Leadership Skills Used

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88
Factor 1 explained 24.4% of variance and consisted of nine items, (item numbers 1, 5, 6, 8, 23, 24, 25, 36 and 40). The items contained the following statements: assuming responsibility when given, demonstrating a vision for the school, communicating and gathering support for the vision, knowing school rules and regulations, supporting a positive learning environment, establishing a school culture supportive of excellence in instruction, coordinating a comprehensive program of student activities, serving as a role model and providing effective supervision. This factor emphasised **Visionary Leadership**.

Factor 2 explained 10.0% of variance and contained seven items, (item numbers 2, 26, 27, 28, 29, 31 and 46). The items contained the following statements: namely, taking action when problems arise, identifying the needs of colleagues, providing others with specific feedback on performance, helping in self-development of teachers, involving teachers in developing professional activities, designing a mechanism for accountability of all and establishing procedures to regulate school activities. This factor emphasised **Staff Development with Accountability**.
Factor 3 explained 6.8% of variance and contained six items (these were item numbers 17, 22, 30, 38, 39 and 48). The items contained the following statements: putting a plan into effect, helping others to work more effectively, identifying the needs of the school, creating a friendly environment, recognising achievement and understanding differences in personal priorities. This factor emphasised Implementation and Sensitivity.

Factor 4 explained 5.9% of variance and contained five items (these were item numbers 4, 7, 32, 37 and 41). The items contained the following statements: setting priorities, gathering data and facts to make a decision, helping in planning and developing a budget, identifying the needs and concerns of others and developing curriculum for students. This factor emphasised Need Based Management.

Factor 5 explained 5.5% of variance and contained five items, (these were item numbers 19, 20, 21, 42 and 44). The items contained the following statements: checking on progress of the group, leading a group to task completion, providing opportunities and supporting others to develop leadership skills, verbal presentation of ideas and expressing ideas clearly in writing. This factor emphasised Group Development.

Factor 6 explained 2.17% of variance and contained three items, (these were item numbers 12, 13, and 15). The items contained the following statements: making timely decisions, giving priority to significant issues and scheduling my time wisely. This factor emphasised Time Management.
Factor 7 explained 1.91% of variance and contained three items, (these were item numbers 33, 34 and 47). The items contained the following statements: creating conditions to enhance staff commitment, establishing a participatory culture of work and adjusting a plan that is not working. This factor emphasised **Work Group Flexibility**.

Factor 8 explained 1.80% of variance and contained five items, (these were item numbers 9, 35, 43, 45 and 50). The items contained the following statements: rewarding excellence in performance, recognising effective performance, avoiding gender biased behaviour, demonstrating skills that assist the school and providing guidance program for students. This factor emphasised **Group Motivation**.

Factor 9 explained 1.74% of variance and contained two items, (these were items 3 and 16). The items contained the following statements: accepting authority when it is given and meeting deadlines. This factor emphasised **Authority Acceptance**.

Factor 10 explained 1.38% of variance and contained one item, (this was item number 18). This contained the statement: identifying who can accomplish tasks. This factor was named **Discreteness of Choice**.

Factor 11 explained 1.18% of variance and contained one item, (this was item number 49). This contained the statement: displaying tact. This factor emphasised **Displaying Tact**.

Factor 12 explained 1.07% of variance and contained one item, (this was item number 10). This item contained the statement: knowing when to seek additional information. This factor emphasised **Information Seeking**.

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Factor 13 explained 1.01% of variance and contained two items, (these were items 11 and 14). The items contained the following statements: namely, identifying several alternatives in problem solving and planning my own work. This factor emphasised Planning.

DESCRIPTION OF LEADERSHIP COMPETENCIES SKILLS:

Visionary Leadership had been described as a mental picture of a preferred future which is shared by all within the school and which shapes the programme of learning and teaching as well as policies, priorities, plans and procedures prevailing in the day-to-day life of the school.

Staff Development with Accountability had been described as those procedures and ways in which an atmosphere is created to foster the overall development of staff and ensuring that staff is accountable for its performance.

Implementation and Sensitivity had been described as procedures and plans formulated and to be implemented with regard to individual needs and differences.

Need Based Management had been described as the growth of leadership in each person according to their interests, needs and capacities.

Group Development had been described as the ways in which a feeling of fostering overall development is created and maintained for harmonising services in a unified manner.
Time Management had been described as the ways in which time is effectively managed.

Work Group Flexibility had been described as the ways in which the plans are made adjusted if needed and enforced according to the needs of the schools.

Group Motivation had been described as the ways in which encouragement and inspiration is given to the group to maintain a high morale and achieve high levels of performance.

Authority Acceptance had been described as the ways subordinates accept authority of their leader within the school.

Discreteness of Choice had been described as the way in which choice making is done keeping the betterment of the school in mind.

Displaying Tact had been described as the way tactful behaviour is displayed.

Information Seeking had been described as the means through which information was obtained to facilitate effective communication network.

Planning had been described as the function of decision making, keeping in mind the present and future problems, facts and situations.
ADMINISTRATION OF TOOLS

Once the schools were selected for the study, the administrators of schools were contacted and due permission was sought to conduct the study. Then teachers were contacted individually and appointments made for administering the questionnaire after explaining the objectives of the study. Questionnaires were administered on an individual basis. All the scales were compiled in one set. Respondents were given detailed instructions for marking the responses. Respondents were given personal assistance in case of any doubt about any specific statement. On an average a respondent took 25 to 30 minutes to complete the set of scales.

SCORING and CODING

Personal Data Sheet

This sheet was used to record demographic information of administrators and teachers regarding name, age, gender, marital status, name of school, type of school, designation, years of teaching experience, years of administrative experience, gender of principal, educational qualifications. These were classified and coded according to the predetermined criteria, which are as follows:

Females as 1 and Males as 2.

Age was coded as 29-39 years as 1, 30-39 years as 2, 40-49 years as 3, 50-59 years as 4.
Girls schools as 1, Boys schools as 2, Co-educational schools as 3.

Teacher as 1 and Administrator as 2.

Years of Teaching Experience was coded as 5-9 years as 1, 10-14 years as 2, 15-19 years as 3, 20-24 years as 4, 25-29 years as 5, 30 years and above as 6.

Years of Administrative Experience was coded as 1-5 years as 1, 6-9 years as 2, 10-14 years as 3, 15 years and above as 4.

Educational Qualifications was coded as Graduate as 1 and Postgraduate as 2.

Glass ceiling was measured by a three item career opportunity Likert scale based on a School Scenario.

Instructions

Given below is a scenario of a school situation. Kindly read the scenario and mark your preference using a four choice response format. Kindly put a ring around one of the numbers to show the extent of your agreement / disagreement. There is no right or wrong answer. Each respondent was required to respond to three statements on a four point scale.
Leader-Subordinate behaviour was measured using a Leadership Scale consisting of fifty statements on a five point scale.

Instructions:

Listed below are skills that administrators/teachers use to perform in the school. Your task is to assess yourself in the use of each skill. Read each statement and rate yourself according to the following scale.

Circle 5 if you use the skill very well.
Circle 4 if you use the skill well.
Circle 3 if you have limited experience in using the skill.
Circle 2 if you have only seen others using the skill.
Circle 1 if you have no knowledge or had no opportunity to develop the skill.

To measure Gender Stereotypes a standardised inventory, namely Bem’s Sex Role Inventory (BSRI) was used. This inventory was used as no specific inventory existed for the measurement of gender stereotypes. As Bem has taken gender stereotypical feminine as well as masculine items in the Sex Role Inventory the term Sex Role and Gender Stereotypes has been used interchangeably in the present study. When filling the BSRI, a person is asked to indicate on a 7 point scale how well each of the 60 characteristics describes herself or himself. The scale ranges from 1 ("Never or almost never true") to 7 ("Always or almost always true") and is labelled at each point.

The BSRI treats femininity and masculinity as two independent dimensions, enabling a person to indicate whether she or he is high on both dimensions ("androgynous"), low on both dimensions ("undifferentiated"
or high on one dimension but low on the other (either "feminine" or "masculine"). The BSRI is essentially self-administering. The inventory consists of sixty adjectives and phrases printed on a single sheet with instructions and space for personal information about the subject on the reverse side.

The first step is the calculation of each subject’s Femininity ("a") and Masculinity ("b") scores, which are the averages of the subject’s ratings of the feminine and masculine adjectives on the BSRI. The placement of adjectives on the BSRI is as follows: The first adjective and every third one thereafter is masculine, the second adjective and every third one thereafter is feminine, the third adjective and every third one thereafter is a filler.

To score, the sum of the ratings for each scale was added and divided by the number of items rated. Unless the subject had omitted items, the divisor was 20 for the Original form. The average for the ratings for the Femininity scale was entered in the box for the "a" raw score (RS) at the bottom of the answer sheet. The average of the Masculinity ratings was entered in the box labelled "b". The standard scores (SS) for each of the raw scores was found using Table1, of the Bern manual and entered into the SS boxes under the raw score boxes. Next, the Difference score was obtained by subtracting the "b" SS from the "a" SS. The plus (+) sign is used for positive and minus (-) for negative. High scores in either direction indicated a tendency to be strongly sex-typed, positive scores indicate femininity and negative scores indicate masculinity. After obtaining the a-b score, the Standard score was obtained.
Thus, if a person’s Femininity score was significantly higher than her or his Masculinity score, that person was said to have a feminine sex role; and if a person’s Masculinity score was significantly higher than her or his femininity score, that person was said to have a masculine sex role. In contrast, if a person’s Femininity and Masculinity scores were approximately equal, that person was said to have an androgynous sex role. An androgynous sex role thus represented the equal endorsement of feminine and masculine personality characteristics: it showed a balance between femininity and masculinity.

Procedure

All the four questionnaires were administered in one sitting. The Demographic Performa was placed first, followed by the Glass ceiling inventory, Leadership scale and the Bem Sex Role Inventory. One set of questionnaires was administered to one respondent personally. They were given sufficient time to respond to the questionnaires. Whenever, it was necessary, possible explanations were given regarding the purpose and nature of the study. The respondents were allowed to take their own time and were asked to respond to all the questions. The researcher collected questionnaires from the respondents and checked whether all the items in the scales were complete. After gathering all the questionnaires, the researcher sorted them out, serialised and scored them. The data was coded on scoring sheets for computation.

A copy of the questionnaires is enclosed in Appendix – 1
STATISTICAL ANALYSIS

Data was quantitatively analysed using Means and Standard Deviations, Analysis of Variance, Correlation Analysis and Regression Analysis. Content Analysis was used to analyse the narratives obtained from nine administrators and teachers using the Case Study method.