

CHAPTER- 2

REVIEW OF LITERATURE

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Chapter 2

Review of Literature

Introduction

Any study of importance, when carried out, needs to be done in the light of what has already been done and what is not. This would help not only in identifying the problem but also in defining it. Review of related literature also would help in developing the tools and developing the procedure to be followed in the study.

This chapter presents a review of relevant literature on sexism in school curricula and textbooks in India. Compared with other developed countries, in India, research in sexism at the school stage is a relatively new field of study. What is attempted below is to provide a review of some of the studies carried out in this area, which are important and relevant to the present study. An attempt has been made to review studies on gender issues in education, in particular on sex role socialization, sexism in curricula, both overt and hidden, and in school textbooks. The studies that have been reviewed are presented in two broad sections: studies conducted abroad and studies conducted in India on the above themes.

The various studies that fall under each of these major sections were further classified into sub-categories depending on their theme and nature. Accordingly, studies conducted abroad were sub-categorized into four groups namely, (i) studies involving sex differences in academic achievement and creative ability, (ii) studies involving sex differences in vocational attitudes and career aspirations, (iii) studies involving sex role socialisation and differentiated treatment, and (iv) studies involving sex stereotyping in curriculum and textbooks.

Following similar lines, depending upon their nature and topic, studies conducted in India too were sub-categorised into five groups, namely (i) studies involving gender disparities in education, (ii) studies involving sex differences in

academic achievement and creative ability, (iii) studies involving sex differences in vocational attitudes and career aspirations, (iv) studies involving sex role socialisation and differential treatment, and (v) studies involving sex stereotyping in curriculum and textbooks.

In what follows, an attempt is made to provide a brief account of the various studies that were reviewed.

2.1 Studies Conducted Abroad

2.1.1 Sex differences in academic achievement and creative ability

Sex differences are fundamental in human development. Difference between the sexes has been found for almost every physical variable, including body build, physiological functioning and biochemical composition. Several studies have been done on the sex differences in academic achievement and also work has been done on the difference between the sexes in intelligence and special mental abilities. Researchers have investigated that females used both sides of the brain while males used only the left side. Men are said to be more spatial and women are said to be more verbal (Kolate, 1995). As a result boys, do well in science and mathematics, while girls are said to have better academic achievement in the arts and languages. However, the studies reviewed here indicate that this may not always hold true.

Wilson carried out a study on high school students to find out the differences between the sexes in their attitude and ability to solve problems. The study found that females obtained significantly higher scores than males on the problem solving test and the attitude scale. The study also reported that the females enjoyed significantly more information seeking behaviour than the males.

Little and Williams conducted a study about fluency in the language areas. They found that more boys than girls have greater verbal fluency in achievement in language areas.

Edgerton and Britt found at the high school level that boys than girls have greater science knowledge and achievement. A study by McAndrew revealed no significant sex differences in children aged 3 to 6 years, in ideas of causality as shown by their answers to questions and their analysis of 'tricks'. These findings support the hypothesis that the difference in science achievement is one which develops during the school period and is related more to a difference in interest than to differences in basic abilities.

Cunningham and Price conducted a study based on achievement tests in arithmetic of 40,000 children in Australia. They reported that in mechanical arithmetic boys, were superior to girls, but the differences were not statistically significant.

Kolate (1995) in his report states that biological differences between men and women no doubt exist, and many may be universal, but cultural differences have the most important impact on women and men. In a more recent review and study of gender differences on maths and science achievement (Linvers, Davis-Kean and Eccles, n.d.), the authors have found that there are very few true differences between maths and verbal abilities between men and women. According to the authors, comprehensive reviews of research in this area have shown only two gender differences in specific sub-areas of spatial and verbal abilities, three-dimensional mental rotation (favoring men), and speech production (favoring women). In fact, research has also shown a decline in the differences between the genders in the past few decades on standardized test, suggesting that the more exposure that women are getting to maths and science classes, the better their scores.

Overall the studies reviewed here showed that girls have better abilities in problem solving, information seeking, while boys have better verbal fluency with languages and science knowledge and achievement. In another study on mechanical arithmetic, boys had superior ability to that of girls, though the authors reported that the difference was not statistically significant. More recent research

and reviews have sought to prove that more than biological differences, it is the cultural differences that have an impact on gender differences in abilities rather than purely biological. The more exposure and opportunities girls get, the better they would perform.

2.1.2 Sex differences in vocational attitudes and career aspirations

Sex differences in occupational attitudes have been reported by several studies. The study by Smith (1976) showed differences in career choices, attitudes and competencies of boys and girls. Most of these indicate that females are higher than males at school leaving stage in choice attitudes.

Most of the research studies on career maturity inventory (CMI) attitude scale have discussed and indicated that the females do better on career attitude than males; whereas the evidence is still lacking on the competence test. A study conducted by Holland (1979) did not find sex to be a significant source of variance on the CMI attitude scale.

Haungs (1975) carried out a study of American and Chinese students. He studied 'maturity' of boys and girls. He found that the girls were more mature in career attitudes than the boys. In American boys at the sixth grade level, sex differences tend to decrease at grade IX and grade XII with boys and girls evidencing about the same degree of development. In contrast, the career attitude maturity of Chinese girls seemed to be most like that of boys at the sixth grade level. However, girls become increasingly more mature than boys at grade IX and grade XII.

Mintzer (1977) carried out a study on carrier choice attitudes of boys and girls at the secondary level. On samples of boys and girls at grades VIII and IX he found that girls score higher than boys on career choice attitudes at every grade level.

Shields (1979) gave career maturity inventory (CMI) to 84 gifted students of grade XI and XII grades and found girls scoring higher than boys on all but one of the six separate parts of the CMI.

Super and Thompson (1979) carried out a 10 year's research on career development inventory, about the nature of career maturity at the secondary school level. According to them it was difficult to make a definitive statement concerning sex differences. They found however, a tendency for the male students to score higher than the females on the attitude scale.

A commonly cited potential cause for differences in occupational attitudes, as a function of sex is the manner in which a child is socialized. Lehman and Witty (as cited in Manjrekar, 1999) found differences in occupational attitudes of boys and girls. They found that vocational attitudes of boys appear to change more frequently than those of girls. The authors also have shown that sex differences in vocational attitudes are due to differences in the experience of sex as resulting from differences in socialisation of boys and girls may have implications for the difference in the development of career choice, attitudes and choices of competencies.

The studies reviewed under this section have shown that girls have better career attitudes than boys as they grow older. However, at the same time, long years of research (Super and Thomson, 1979) has found that it is difficult to draw any definitive conclusions regarding sex differences in career maturity. Some researchers have attributed the differences in occupational attitudes to differences in the socialisation of boys and girls.

2.1.3 Sex role socialisation and differential treatment

Children learn their gender through the process of primary (within immediate family/community) and secondary (outside the family) socialisation. As soon as a child is born, it is assigned a gender on the basis of its sex, as identified from the external sexual characteristics. Then the child is socialized, by way of language, clothes, toys, etc., in forming a gender identity and traits that are concordant with the

gender it has been assigned. Thus most children form their gender identity through the process of socialization. Most individuals live with this identity throughout their lives, but some may face identity confusion, at some point in their lives. Following are some of the studies that have examined gender identity in school children.

Biller (1968) conducted a multi-aspect investigation of masculine development in 86 kindergarten age boys. Biller had used the sex of the first figure drawn as one of the measures of sex role orientation. Consistent with previous studies (Brown and Tolor, as cited in Srivastava, 1990) his findings were that the majority of subjects 71 percent draw a male figure first. The majority 66 percent also differentiated between their male and female drawings.

Forseland and Hill (1972) investigated the sex-role relationship between pre adolescent boys and girls and persons with whom they identified. Subjects were 1,322 boys and 1,350 girls from 95 sixth grade classrooms of the Albuquerque New Mexico School system. Subjects were asked to tell persons whom they know and admired and persons who they did not know but admire. Boys tended to identify strongly with their fathers, sibling of the same sex, their peers and public figures of the same sex.

Ward (as cited in Srivastava, 1990) conducted a study to investigate the sex trait stereotypes in Malaysian children. Forty children aged 5 years and 40 children aged 8 years were tested with a stereotype measure. Data were subjected to an items level analysis, a mixed design ANOVA and cross cultural comparisons. Results revealed that the male traits were identified more correctly than the female traits and boys were more familiar with the male stereotype than were girls.

Research by Broverman and Clarkson (1972) and Ruble (1983) showed that self confidence is stereotyped as a masculine characteristic. Boys are expected to develop self confidence, whereas displaying self confidence has traditionally been a gender role violation for girls.

Schools play a significant role in the socialisation of children and in learning their gender roles. Gender separation which is widely observed in schools in various forms such as seating arrangement, task assignation, playing games, etc. (Delmont, 1990; Grant, 1983). Even teachers' expectations, evaluation and regulation of behaviour, rewards and punishments are different for boys and girls (Sadker and Sadker, 1994).

Frazier and Sadker (1978) state that in schools, girls are encouraged to be silent, neat and conformist. They are also encouraged to play down their sexuality and yet at the same time to behave differently from boys.

Differential treatment of boys and girls does exist, in subtle forms, if not stark. In school, teachers may interact more frequently with boys and give them more specific, helpful feedback (Sadker and Sadker, 1994) or girls may be silenced or become silent in the classroom, or boys may receive more attention than girls, because their behaviour is hostile or potentially more disruptive than that of girls (Frazier and Sadker, 1973). Such differential treatment may affect their self-esteem. Although many teachers are committed to equity (Sadker and Sadker, 1994) such differential treatment or patterns of interaction in the schools may gradually undermine a girl's sense of competence and affect her self-esteem. Sadker and Sadker (1975) state that sexism in schools severely inhibits not only the potential of girls but also limits the potential of boys. Though the main goal of education is to encourage each child (especially girl child) to develop to her or his potential. Several studies in the United States have shown that besides sex bias in the curriculum and textbooks, classroom practices are among the major impediments in the achievement of this goal.

The studies reviewed here have found that most children have gender identity concordant with their sex. The process of socialization serves to perpetuate and reinforce gender stereotypes. Besides the family, schools also play a major role in this regard. Studies also show that sex bias in curriculum, textbooks and their

transaction in the classroom impede the achievement of the very purpose of education which is to encourage development of every child, regardless of its sex.

2.1.4 Sex stereotyping in curriculum and textbooks

Studies on gender bias and stereotyping in curriculum have generally focused on examining school textbooks. In early texts, men were portrayed as brave, courageous, curious, avaricious, violent and bloodthirsty while women were usually absent or had jobs and no careers (Carrington, 1987). The early studies that were conducted in the 1970s, revealed that the male and the female characters in the textbooks were represented in distinct roles. The Males were depicted as being active, doing things related to the outside world, whereas most female characters were shown in domestic roles. Not only are gender differences presented in an exaggerated manner, but also the portrayal of women does not reflect the social reality (Lobban, 1974; Finn et al., 1979).

Spender (1980) based on her work on sociolinguistic analysis of the school textbooks says that “the inequality of the sexes is subtly maintained by providing one sex with a few tarnished images with which, to make sense of the world and their place within it and by providing the other sex with a range of glorified images. It is not surprising that they tend to learn the lesson likewise and develop very different self concepts.”

Studies which indicated stereotyping and discrimination in the school textbooks show how women always get domestic roles and helpers, i.e. ‘caring labours’. One such study conducted by Weitzman and Rizzo (1974) showed that stereotyping was most extreme in the science books, where only 6 percent of the pictures included women. It was also found that mathematics, science and social studies textbooks depicted an equally limited number of images of women. Rarely were women mentioned in important roles as leaders or great scientists.

The study by King and Morrissey (1988) revealed that women were ignored and under-represented in 9 out of 20 textbooks and they figured only in passive and

subordinate roles in 5 out of 20 textbooks. Their achievements and contributions were ignored. Similarly, the analysis of texts by Pico (1980) revealed sexist stereotyped treatment of women in terms of roles at family, community and national levels. Women were omitted from the reported history of Puerto Rico! Harvey (1990) found that boys were more likely to be the focus of stories than girls. In some cases occupations were consistently male generic, but often, in a particular series, there was a consistent and obvious attempt to keep them neutral, even to the point of avoiding pronouns. The study by King and Morrissey (1988) showed that women were ignored and under represented in 9 out of 20 textbooks and they figured only in passive and subordinate roles in 5 out of 20 textbooks. Their achievements and contributions were ignored.

Thairu's (1990) study of gender bias in primary school textbooks within the African Region found that the males become migrant workers, while the females have to perform 'Male-roles'. They have to shoulder the double responsibility of doing domestic and outdoor work also. The written materials for the school curriculum however, have ignored the above changes. Instead, they tend to reflect traditional practices. Further, the study found that there were 10 percent female characters in the primary level textbooks, only 2 percent of whom were girls. The textbooks on agriculture fail to show that women are active participants in this field. Likewise, an analysis of science textbooks reveals that they have not been used as an effective means to encourage girls to benefit from the teaching of science. They are kept in the dark about technological developments taking place in the world. They are shown watching boys performing experiments or handling sophisticated equipment. The girls are not encouraged to aspire for prestigious and high income generation professions. In the textbooks on mathematics, women are presented as being able to cope with only simple calculations. The language textbooks tell a similar story. These textbooks fail to reflect the reality of women role and status in African society; they do not seek to promote equality of the sexes or even to employ education as an effective agent of bringing about attitudinal changes in society.

Callus (1990) reviewed gender bias in Maltese primary school textbooks. She found that women were relegated to the sphere of home and to a subordinate role, while men were identified with the outside world, with activity and leadership. The textbooks completely ignored the changes occurring in society, the emerging new values commensurate with the status of women, and tended to show women sharing the burden of physical labour. Though girls enjoyed free education, the textbooks were replete with images of traditional sex roles as the central domestic activity. They emphasise the strict division of roles "father goes for work, earns money; mother looks after the house and children". The illustrations depicted men waiting for the mother to serve dinner.

A survey was carried by Seema Pervez (1988) in Pakistan found that in Urdu novels the depiction of the value of women as better human beings becomes secondary to their being a cluster of big attractive eyes, long black hair and their physique. In most of these novels the women characters are depicted as weak and meek, who can be easily exploited both emotionally and physically. They are also projected as economically non-productive. These views from novels slowly come to the textbooks and the image of the woman (weak and meek) has been taken as granted in the negative sense.

Anwar (1988) had also conducted a study to locate the status and roles assigned to the male and the female characters in the textbooks for students upto grade XII in Pakistan. The analysis revealed that there were 81 percent male characters as compared to 19 percent female characters of the total books. The most frequently occurring activities of female characters were: cooking, domestic help, and cleaning. Their activities did not command high status in society.

Thus, all the studies reviewed here, from different parts of the world, point to the fact that sexism is prevalent in all societies, where the social structures are patriarchal. This in turn finds its way into the textbooks and results in the perpetuating of stereotypes regarding women's role in society and their value. Neither women's contribution to society, nor the changing realities of their lives get

reflected in the textbooks. Women continue to be depicted as playing traditional domestic roles of mothers and homemakers, economically non-productive, invisible as scientists and professionals.

2.2 Studies Conducted In India

Female literacy and education have been a major variable or the focus of much of the research conducted in India on the status and development of women and the girl child. The research related to women's and girls' education in India have focused largely on the gender (male-female) disparities in literacy rates, school enrolment and retention rates and the various socio-cultural factors underlying or contributing to these disparities.

2.2.1 Gender disparities in education

The development of female education in India has received considerable attention from researchers. In fact several studies have been conducted in various states of India on low female educational attainment and slow progress made in the education of girls and women and the underlying causes or contributing factors for the same.

Some of the available literature on women's education trace the development as well as decline of women's education through history (Desai, 1976; Altekar, 1944; Naik, 1949; Thakkar 1976; Vakil, 1965) and identify the causes of the slow progress as: social prejudice, child marriage, conservative and traditional attitudes and beliefs about women's role in the society. Social control of women, to control their sexuality is also identified as a factor hindering girls' access to education (Chanana, 2001).

Studies conducted during the 1960s and 1970s have identified wastage and stagnation as the main hurdle in the development of women's education (Vakil, 1965; Misra 1961). The retention rates of girls were poorer than that of boys (Chandrasekar, 1978) and the incidence of wastage and stagnation was more among girls than boys (Sharma and Sapra, 1969). Studies conducted in various states of India during this period identify various reasons for the backwardness of women's and girls' education. Prasad (1967) gave the following reasons for the slow

progress of female education in Bihar: dearth of lady teachers, prevalence of child marriage, purdah system, and absence of monetary gains in education of girls. Basu (as cited in Garewal, 1977) gave the same reasons for the slow progress of girls' education in Bihar.

According to Tiwari (1964) the following were the main reasons for the slow progress of girls' education in Uttar Pradesh: social prejudice, poverty, and early marriage, lack of separate schools for girls and shortage of women teachers.

Das (as cited in Ghadially, 1988) reports that in Assam there was a wide gap between the educational facilities and educational opportunities to men in comparison to women. He further reports that there have been positive changes in the economic, cultural, political, religious and other spheres of the social life in the State with the spread of women education.

Dave (1971) gave the following reasons for the backwardness of girls' education in Gujarat: girls are considered as a burden on their parents until they were married; they have no right to property; the custom of child marriage. The family system was paternal and the eldest male member was the final authority. The role of women was limited and restricted to home life specially looking after children and their husbands. The girls looked after their younger brothers and sisters while the parents worked in the fields.

Gupta (1980) studied the utilisation of educational facilities by the Muslims in a district of Uttar Pradesh. It was found that though the enrolment of Muslim girls at the primary stage was quite in proportion to their population, later on, they were much under-represented. This was largely found due to parental illiteracy, low socioeconomic status and observation of seclusion (purdah) by girls after puberty. Absence of favorable male attitude also was a major factor, affecting Muslim women's education.

Dutt (1982, as cited in Buch, 1992) in his study on educational backwardness of girls in the state of Haryana examined the educational wastages and enrolment

rates of girls (age 6-14) including scheduled caste girls. Incentives provided in the form of free uniform, free textbooks, mid-day meals, attendance scholarship and merit scholarship did not help prevent girls from dropping out of school. Causes of girls dropping out were reported as: teacher's behavior, caste discrimination, poverty, helping parents in their work, looking after younger children, inadequate facility in school, early marriage, lack of interest, irrelevant syllabus, ill health, age difference in class, illiteracy of parents and non existence of separate high schools for girls.

Singh's (1988, as cited in Buch, 1992) study of the extent and causes of drop out among girls in the rural schools of Chandigarh found that the drop out rate of rural girls was higher in the primary stage, at class I, as compared with other classes, with this rate going down in the higher grades. The causes of drop out were: parents' unwillingness to send their daughters because of domestic reasons, early marriage, especially among Muslims, and orthodox thinking or attitudes towards girls' education.

A situational analysis of the girl child in India conducted by Nayar (1989) found that the learning opportunities available to the Indian girl child in the real life situation throughout the lifecycle are very low. Elementary education is basically a problem of enrolling and retaining the girls who enter late and drop out early, and rural girls are not enrolled at times because of the serious under provision of schools in the rural areas. Moreover, at the secondary level the gender gap increases and girls are found in the arts stream largely or in gender stereotyped vocational courses available to less than 8 percent of the age group.

Another situational analysis of the girl child in the state of Rajasthan by Nayar (1989, as cited in Buch, 1992) also found that the provision of schooling/educational facilities for girls was low and its utilization was still lower on account of social, economic and attitudinal barriers and sheer physical distance. Poverty and hunger are listed as the chief causes of non-enrolment and non-attendance of girls. At the

same time however, even among poor households, boys are given preferential treatment.

Pandit and Ray (1989, as cited in Buch, 1992) found that the drop out percentage is higher in the lower caste groups. Unfavourable social ethos and prevailing unsafe conditions deter parents from sending mature girls to co-educational schools. Young male teachers are also a substantive cause of withdrawal of girls. Other major school related factors are: inconvenient school timing; distance from the house; lack of proper coaching for a difficult subject; and heavy curriculum at secondary level. There are household factors like excessive load of domestic work; care of siblings; fetching water, fodder and fuel; helping parents in their occupation.

A survey conducted by Nayar (1991) in rural and urban areas found that school related factors and absence of women teachers are responsible in the discontinuance of girls' education. Schools are distantly located and parents find extremely difficult to send their daughters to schools. It involves loss of time, security problems, particularly during rainy season. In rural areas parents do not send their daughters in absence of women teachers. Parents do not find safe for their daughters. It is a common feeling that only women teachers can best "understand girls and problems related to them in a better way."

Nayar and colleagues (1992) in their study found that the drop out and never enrolled girls belonged to below subsistence level households. Parents pointed out that education was not free and they found it difficult to meet non-tuition costs like uniforms, books, etc. The authors conclude that domestic work and sibling care were the chief reasons for the girls not attending schools. But this was not in the case of boys. The parents were ready to spend for boys because the household would be run by boys in the future and not by girls. Girls were considered as guests in their fathers' house.

The District Primary Education Programme (DPEP 1994) had conducted a gender study in the state of Madhya Pradesh. The study found that poverty was the main reason for girls to drop out from schools. Parents face difficulties to meet basic necessities and requirement of life. In these families if the choice were given to educate their son or daughter, the preference is always for the son. According to them, educating sons is an investment and educating daughters is an economic burden, because "bringing up a daughter is like watering a plant in another's courtyard." (Kulashrestha, 1994)

Devendra (1995) found the dropout rate and stagnation among girls is almost double to that of boys. Gender disparities are always there especially in rural India with regard to enrolment and retention. It is true, that girls' enrolment has been increasing, and it is even higher than that of boys. The disparities are there because girls drop out in large numbers at the primary and upper primary level.

The review of studies on gender disparities in education found that all the studies highlight the neglect of girls in the field of education. In the rural areas, girls' education is more backward. Girls have less access to education, more so in the rural areas. Social prejudice, poverty, early marriages, lack of separate schools for girls and shortage of women teachers were the main reasons for the backwardness of girls' education. Girls are considered a burden for their parents and they are unwilling to invest in their education, as they would get married and leave their parents house.

2.2.2 Sex differences in academic achievement and creative ability

There are a few studies in India, which have examined the sex differences in academic achievements and creative ability.

Gaur (1982) studied the reading ability in relation to achievement. Major findings of the study were: The speed of reading, comprehension and vocabulary of boy students were far better than those of girls. The age of the students was found

not significantly related with speed or reading comprehension and vocabulary of the students.

Joshi (1984) studied the factors influencing English language abilities. The major findings of the study were: The scheduled caste girl students were found to attain below average growth level in each one of the six English language abilities whereas girl students of non-scheduled castes were found to be slightly higher than average in these abilities.

Deshpande (1984) studied the determinants of the achievement of the students of S.S.C. Examination in the Pune Division of Maharashtra State. The major findings of the study were. The students from the high achieving schools were higher in the intelligence than their counterparts in the low achieving schools. The students from the low achieving schools were more anxious than the students of the high achieving schools. Achievement motivation was found to be higher in the students of the high achieving schools than those of the low achieving schools. The teacher morale was higher in the high achieving schools than in the low achieving schools.

Kapoor (1987) studied the factors responsible for high and low-achievement at high school level among boys and girls. The major findings of the study were: among boys and girls, boy achievers tended to show a higher level of intelligence as compared to the average and the low achievers. The high achievers had better home, health, social, emotional and school adjustment. The boys were found to have more facilities in all manners than girls. Among boys and girls, the high achievers had better study habits as compared to the average and the low achievers. Girls were found to be more studious and regular in their study and reading habits compared with the boys.

Trimurthy (1987) conducted a study of creative thinking ability of secondary school students in the context of some psycho-social factors. The objective of the study was to determine the extent to which sex and rural – urban location influenced

creative thinking ability. The study was of experimental type and the tool used was verbal test, which was standardized. The general ability test of M.T. Patel and the Anxiety Test of H.K. Nijhawan were also used as tools for the study. The major findings of the study were that boys were better than the girls in both verbal and non-verbal creative thinking ability and that the urban students were better than the rural students in both verbal and non verbal creative thinking.

Parmar (1998) studied the achievement of standard VII students in Karjan block of Vadodara district. The major findings of the study were: achievement of girls was higher than that of the boys of primary schools. Achievement of girls was higher than that of boys in Hindi, while there was no difference between the achievements of different categories. In science subject, girls' achievement was higher than the boys' achievement, while there was no difference in the result of different categories.

According to Shah (1995) differences between the sexes in general intelligence cannot be identified. Because some problems favour males and some favour females, there is no satisfactory way to decide which ones constitute more valid indicators of general mental ability. Girls tend to excel on verbal types of problems, boys on quantitative or spatial. School marks almost universally indicate superior achievements for girls, whereas achievement tests show girls superior in all kinds of language material, boys in science and mathematics. Vocational aptitude tests show boys higher in mechanical, girls in clerical aptitudes. Ability differences are most apparent at the older age levels in children. Most of them do not show up at the pre-school period. In elementary grades, girls do better than boys in reading comprehension, vocabulary and basic language skills. Boys tend to show superiority in arithmetic. Boys are superior on score tests while girls tend to maintain their superiority in reading.

The studies reviewed in this section show some conflicting findings regarding academic achievements and abilities of boys and girls. Two of the studies reviewed here (Gaur, 1982; Trimurthy, 1987) found that boys were better in reading abilities, in verbal and non-verbal creative thinking. Another review (Shah, 1995) found that

girls were better than boys in reading comprehension, vocabulary and language skills, while boys were better in arithmetic, science, mathematics and perform better on score tests and in mechanical aptitude tests. However, in terms of school marks obtained, girls were better than boys. There are no clear cut differences between the sexes in terms of ability in the studies conducted in India. The studies reviewed in this section also indicate that students' achievement may be affected positively by better facilities at home, better social and emotional adjustment, and higher teacher morale.

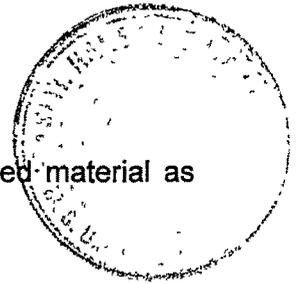
2.2.3 Sex differences in vocational attitudes and career aspirations

Research on sex differences in career maturity and aspirations and or vocational attitudes is still limited in India. Churawala (1991) conducted a study which focused on the career and aspirations of girls. The sample consisted of three schools from different areas in Dahanu. Interviews and questionnaires were used for data collecting. The findings of the study were that most girl students selected teaching and nursing as their future career.

This study by Churawala shows that girls preferred to take up careers that are consistent with their expected gender roles, i.e., those of care givers and educators. More studies are required on vocational attitudes and career aspirations to be able to identify clearly, how these attitudes and choices are shaped.

2.2.4 Sex role socialisation and differential treatment

As also mentioned earlier, schools play a significant role in the socialisation of children and in learning their gender roles. Manjrekar (1999) studied the way children at the primary level learn their gender through the 'hidden' curriculum. The study showed how gender separation and differentiation are promoted in schools through practices like: strict boundaries (for boys and girls) in all classroom routines such as making lines, names on registers, seating arrangements, and on the playground; differential task assignment to girls and boys, such as giving girls tasks that were 'feminine' or domestic (cleaning, carrying, fetching for the teacher within the school premises) and giving boys tasks that involved going out of the school.



Gender divisions were reinforced through transaction of gender-biased material as well as modes of interaction.

Khullar (1989) conducted a study on the creation, maintenance and role of values in a rural community. The study found that there was streaming of boys and girls in different subjects in schools, which was consistent with their primary socialisation into gender roles.

The paucity of studies in this area point to the need for more such studies to identify the various ways in which gender separation takes place in schools, particularly of children in the adolescent age, who with sexual maturation are more likely to experience strict segregation than younger children.

2.2.5 Sex stereotyping in curriculum and textbooks

The situational analysis of the girl child in India conducted by Nayar (1989) found that in addition to low learning opportunities available to girls, courses of study conforming to gender stereotypes, the curriculum also gets reduced to a mere syllabus for academic subjects and has a clear sex bias. Similar findings emerged from another situational analysis conducted in the state of Rajasthan by the same author. The situational of the girl child in Rajasthan also found that the curriculum and its transaction were sex-stereotyped and biased (Nayar, 1989, as cited in Buch, 1992).

Women are invisible in Indian school textbooks. Analyses of school textbooks in India, with ratios of boy-centred to girl centred stories is extremely high, as high as 21:0 and stereotyping of behavior, with girls portrayed as passive and submissive as against boys who are assertive and adventurous (Nischol, 1976, 1979 as cited in Manjrekar, 1999).

A study was conducted by Kelkar, Tamboli and Pore (1976) to examine the Marathi textbooks of standards I to X of Marathi-medium schools in Pune with a view to detecting sex bias in them. The study examined the number of male and female characters appearing in the text and in the pictorial illustrations, their ratio, the

number of male and female centred stories, the number of male and female authors, male and female biographies, the recreational activities of the male and female characters, the professional roles of male and female characters and the character traits of male and female characters. The findings were not surprising. In each of the 10 textbooks examined, the male characters outnumbered female characters, the former were three times the number of the latter. The same was found in the pictorial illustrations too, in which out of 1397 human figures only 325 were females. The stories were also largely male-centred, with 49 male main characters as against only 17 female characters. The text-matter was written mostly by men. In six out of the 10 textbooks, there was not a single biographical sketch, story or anecdote of a female. Further, the recreational activities of the male characters depicted in the textbooks were rich and varied and many of these were of an intellectual nature, while the recreational activities of the female characters were few and common-place and none of them were of an intellectual in nature. The 112 main male characters appearing in the textbooks played 50 different professional roles, while the 22 main female characters played only 7 different professional roles, and the majority of these roles were home-making roles. The female characters in the textbooks were shown to possess traits such as modesty, emotionality, passivity, timidity, chastity, being superstitious, affectionate, loving, hardworking, dependent, etc., which are regarded as typically female traits, while the majority of the male characters were portrayed as brave, active, diplomatic, resolute, ingenious, independent, assertive, etc. The study concluded that women were underrepresented in the textbooks and their portrayal was largely stereotyped.

A study of sexism in school textbooks in India by Kalia (1979) found that the portrayal of Indian women in the school textbooks corresponded highly with their traditionally assigned roles. The roles in which they were portrayed were very stereotypical. In the textbooks, women were described as being beautiful, obedient and self-sacrificing, whereas men were portrayed as being brave, intelligent, and high achievers. By contrast, women's achievement is portrayed as lying in being admired by men for their beauty and cooking skills. Another essay by the same

author (Kalia, 1986) illustrates how sexist the language is in the textbooks. Sexist language in textbooks distorts social reality and presents to the learners stereotypes of women, which do not reflect the reality of women's lives and their experiences.

In their study on "Identification of areas of sex-bias in language materials", in 1983-84, Kulashreshtha and colleagues (1984) examined 400 books published under the National Council for Education Research and Training (NCERT), which included textbooks, library books, prescribed supplementary reading materials of the senior secondary stage. The study found that the themes and the content of the material were not devised to project a positive image of women. The achievements of women were either less highlighted or not at all depicted as compared to those of men. The values of mutual cooperation, harmony, love affection, self-reliance, self-respect, capabilities, etc., which contribute to the projection of a positive image of women, did not find proportionate representation and thus the image of woman that emerged seemed to be inferior.

A study by Surja Kumari and colleagues (1984), which examined textual material for evidence of sexism, found that in the textbooks of the mother tongue, women were portrayed in traditional, stereotypical roles such as serving, cooking, cleaning, washing, taking care of children, etc. It was taken for granted that they would sacrifice their 'self' for the sake of their families. The authors found that textbooks in English had a lower incidence of negative aspects. Reason: women hardly appeared on the scene, but whatever they did, they were portrayed as symbols of love, affection and sacrifice, instead of being portrayed as self-reliant, self directed and self-propelled. Women as projected in these books were incapable of taking decisions.

The study of primary level textbooks in Gujarat conducted by Shah, Lokhandwala and Pathak (1988) found that female characters were conspicuous by their absence in the textbooks of all subjects. The study also found that women were not involved in the production of textbooks as writers, reviewers and consultants.

Kalia (1993) carried out a computer-aided content analysis of 21 English and 20 Hindi textbooks prepared by the National Council for Education, Research and Training (NCERT) and the Central Board of Secondary Education (CBSE), used by 13 lakh students of Haryana, Punjab, Rajasthan, Uttar Pradesh, and Delhi. The study found that in them not only were the majority of characters male, but also that in 75 percent cases men emerged as the dominant figures in the textbooks. Out of the 54 biographies presented in these books, 44 were of men and only seven of women. In addition, the study found that there were several instances in the textbooks wherein women were not only abused but also beaten up by men. Again it was found that, out of 465 occupations described to have been held by the various characters depicted in the textbooks, women occupied only marginal and low profile roles.

In her book "War against gender bias", Kulashreshtha ('Noopur') (1993) states that textbooks have improved in regard of quality of printing, illustrations, variations in stories, and the content has become more representative of Indian society, now including social and racial backgrounds other than the middle class, urban family units. While it is heartening to note that the biases of caste and creed are fast disappearing, it is painful to note that gender biases are not.

2.3 Implications of the Review on the Present Study

Sexism, as the review of the related literature reveals, is something that prevails in all societies, be they developed, developing, or under developed. In all societies, women were generally considered as intellectually inferior, physically weak, and men who assumed these thought that women are not fit for strenuous actions and that they needed protection. So while division of labour was done, men took up the responsibility of winning bread, while women were made to sit at home to look after the children and do the household activities. As women were thought to be intellectually weak, they were not encouraged to take such subjects as mathematics, engineering, and so on. So nursing, home science, stitching, needlework, arts, etc. were traditionally seen as the domains of the female sex. Despite their excellent performance in domains, which were once considered impossible for the females,

the prejudices and assumptions that prevailed in the past continue to persist even today. These assumptions and biases that prevail in society, get into the writing and through it, into the textbooks. When children who are at an impressionable age are exposed to it, they might form false image about women, which in turn can cause much repercussions. Hence before it is allowed to run very far, sexism must be identified and made known so that efforts could be made to eliminate it.

With the spread of democracy, now more and more societies are realizing the need for creating equalitarian social structures. As a result, several studies were carried out both in India and abroad. The studies carried out in the USA, as the review reveals, have shown that sexism continues to have its sway in textbooks in spite of efforts being made against it. Studies conducted by Delmont (1990) and Grant (1983) show that gender separation is something that is observed in schools in various forms, such as seating arrangements, task assignment, playing games, etc. Even teacher expectations, evaluation and regulations of behaviour, rewards and punishment are found different for boys and girls. Further, as Frazier and Sadker (1978) state, in schools, girls are encouraged to be silent, neat, conformist. They are also encouraged to play down their sexuality and thus are expected to behave altogether differently from boys. Teachers also are found interacting more frequently with boys and giving them more specific and helpful feedback. Boys are given more attention than girls because their behaviour is hostile or potentially more disruptive than that of girls. It is found that this type of differential treatment gradually can lead to undermining of the girl's sense of competence and affect her self-esteem.

Apart from such classroom practices, sex biases and discrimination are also found in the curriculum and textbooks in the USA. In early texts, men were generally portrayed as brave, courageous, curious, avaricious, and even violent. Men were also depicted as being active, doing things related to the outside world whereas women characters were shown in domestic roles. Similarly, studies of King and Morrissey (1988) reveal women were either ignored or underrepresented in textbooks and their achievements and contribution were ignored.

Thairu (1990) studied some of the textbooks of the African countries. Her study has shown that in African textbooks, girls are shown watching boys performing experiments or handling sophisticated equipment. In textbooks on mathematics girls are presented as being able to cope with only simple calculations. The language textbooks are also found doing the same thing. Thairu found the textbooks failing to reflect the reality of women's role and status in the African society. The textbooks are not found promoting equality nor are they found to be used as effective tools for bringing about attitudinal changes in the society.

Not different is the case with the primary textbooks of the Maltese schools. While reviewing gender biases in the textbooks, Callus (1990) found that women are generally relegated to the sphere of home and subordinate roles, while men are identified with the outside world, with activity and leadership. Even though girls enjoyed free education, the textbooks were replete with images of traditional sex roles for women as domestic activity. They emphasized the strict divisions of roles. While the father went to work and earned money, the mother was shown as looking after the house and children.

Not dissimilar is the case with Pakistan as far as sexism is concerned. A survey carried out by Pawar (1988) found that in Urdu novels women are depicted as having a cluster of big attractive eyes, long black hair and their physique. In most novels, women characters are depicted as weak and meek, who can be easily exploited both emotionally and physically. They are also projected as economically non-productive. These views expressed in novels, slowly get into society and finally find their way into the textbooks.

Thus the total picture that emerged from studies that were carried out abroad is something that is neither positive nor encouraging as far as women are concerned. Sexism is found rampant in almost all societies, be they developed countries like the USA or the underdeveloped countries in the continent of Africa or

in developing nations like Pakistan. Sexism is something ubiquitous. It finds its presence in textbooks and in their transaction in ways that are subtle.

In India, the review found that only a few studies on sexism have been carried out. The picture that emerged from these was not different from the picture obtained from studies conducted abroad. A study by Kelkar, Tamboli and Pore (1976) of Marathi textbooks of standard I to IX (Marathi medium) found that the male characters in the textbooks outnumbering the female characters. The same was found even in the pictorial illustrations too in which out of 1397 human figures, only 325 were females. In addition, the female characters in the textbooks were shown to possess traits such as modesty, emotionality, passivity and timidity. Also they were depicted as being superstitious, affectionate, loving, hardworking, dependent, etc. while the majority of the male characters were portrayed as being brave, active, diplomatic, resolute, ingenious, independent, and assertive.

Another important study in India was carried out by Kalia (1993). He carried out a computer-aided content analysis of 21 English and 20 Hindi textbooks which were used by 13 lakh students of Haryana, Punjab, Rajasthan, Uttar Pradesh and Delhi. The study revealed that in them not only were the majority of characters male but also that in 75 per cent cases men emerged as the dominant figures in the textbooks. Out of the 54 biographies presented in these books, 44 were of men and only 7 of women. Again, out of the 465 occupations described to have been held by the various characters depicted in the textbooks, women occupied only marginal and low profile roles.

Thus studies carried out on textbooks both in India and abroad have shown beyond doubt that sexism is prevalent in all of them without any exceptions although the degree to which it is found differed from country to country. This implied that if sexism is something that is so ubiquitous, it was not unlikely to find in the textbooks being followed in Gujarat. Even a cursory glance into any of them could reveal that it contained sexist elements in ways that were both implicit and explicit. If such elements were allowed to continue unchecked, they would keep on causing a lot of

difficulties in the optimum development of the girl child. They would stand in their way of effective socialisation, their intellectual flights, their self-esteem and even their self-worth. Democracy presupposes equality for everyone without any exceptions. If such sexist elements in the textbooks, which are inimical to the cause of women are allowed to continue, they would certainly stand as an impediment. They would not only curtail their endeavour towards excellence but also pave the way for the maintenance of the status quo by perpetuating the traditional roles laid down for women. In that case, the nations' attempt at creating an equalitarian society would be at stake. The nations' effort in this direction would go down the drains and would create the situation of being stuck in a quagmire. This could not be allowed. Efforts were to be made in every way possible to point out, detect and eliminate sexist elements from the textbooks. Also the biases and prejudices that may crop up in the process of curriculum transaction were also to be detected and made known. As the review revealed, not a serious study so far has been done on the textbooks of the Gujarat state with respect to sexism. All these pointed out the need for a study such as the present one.

The next chapter (Chapter 3) presents the details of the methodology adopted for the present study.