Education of Girls and Women

USHA NAYAR

OVERVIEW

From philosophical analysis to the empirical social sciences, and finally to women's studies and gender issues, the study of women's education and the women's cause offers a fascinating experience. The pre-Independence period, beginning with the early nineteenth century and coterminus with the social reform movement and the nationalist struggle, can be seen as the phase of the application of the caveats of "philosophical analysis", as seen in the writings and commentaries of social and political activists who were openly committed to promoting women's education and the women's cause. Additionally, scores of official reports, charters and dispatches, not to forget the memoranda given to the British rulers by the Indian men and women, give an insight into the status of women's education in that period. The post-Independence period saw the birth of formal educational and social research, initially dominated by the "value free" empirical social sciences influenced by the methods of the natural sciences and later becoming "value explicit" scientific enquiries, and, finally, the participatory exercises in the discovery of knowledge and its application for the amelioration of human conditions. For good reasons, women's studies and, later, gender studies, arrived as a part of the social sciences for the study of the women's question, and to which women's education is central.

Expectedly women's studies are increasingly influencing both the meta knowledge (concepts, theoretical positions, approaches and methodology) and the substantive knowledge produced on women, their condition, their aspirations, their struggles. Women's studies now concentrate on analysing not only the objective conditions of gender disparities and gender in-equalities but focus on redefinition and restructuring of the social (gender) roles of men and women in the framework of equality. Also, women's studies are offering an alternative world-view which is inclusive of women's knowledge and perspectives, and redefines human interactions and the humannature interaction to give development a human face and sustainability.

The present trend report is organised in three parts. The first part is devoted to the evolution of research and inquiry into the educational and social situation of women in India till date. The second part looks at the researches reported in the five educational research surveys, including the present one for the period 1988-92, as also the researches and other social evidence not captured by these surveys, and the relationship between educational/social research and official policies and programmes, and, importantly, with the women's movement and action. The third part looks very briefly at the gender gaps and indicates a suggestive framework for future research on women's education and women's issues.

EDUCATIONAL AND SOCIAL SITUATION OF WOMEN IN INDIA

The Pre-Independence Period

The concern for the education of women and girls has dominated Indian thinking since the early nineteenth century when the modern (Western) system of education was founded under the East India Company Charter of 1813, and in this scheme for educating Indians, women's education found no place. The Company, in line with its policy of strict 'social and religious neutrality', opted to educate men only for it was felt that "the strong prejudices against the education of women which prevailed among the people were so deeply rooted in the social and religious life that any attempt to educate women was sure create a very great commotion." (Government of India, Ministry of Education, Report of the National Committee on the Status of Women 1959.) It was expected that the men thus educated would themselves undertake the education of their 'womenfolk', at a later date.

The education of women developed through the nineteenth century till the Independence of India largely through private initiative and the pioneering efforts of Christian missionaries and liberal Englishmen and, later, of the leaders of the Indian social reform movement and the nationalist struggle. The first state response came in 1854 (Wood's Despatch) when the education of girls was owned up as a state responsibility. Up to 1882 (Hunter's Commission), only the primary education of girls received state support, after which came the concern for the secondary and higher education of girls and the preparation of women teachers (Nayar, U. 1988). The introduction of Dyarchy (1921) and Provincial Autonomy (1937), and the mass mobilisation for the freedom struggle not only inducted women into the political processes but made them come into their own as a constituency with the birth of the All India Women's Conference in 1924. Women in British India attained the right to vote along with men much ahead of several of their Western counterparts. Mass education was seen as the drive-arm of the mass based freedom struggle. The early demand for compulsory universal primary education was shot down in 1911 but reappeared more strongly in the Nai Talim (Basic Education). To that extent the Post-War Educational Development Plan (1944) stated that all education which was good enough for boys would be equally beneficial to girls. (Report of National Committee on Women's Education 1959.) In less than a century, education of women had gained legitimacy and public support in addition to state support.

The social reformers saw education of women as a means of deliverance of women from centuries of obscurantist traditions, like Sati, enforced widowhood, female infanticide, child marriage, and denial of the right to property, among others. A primarily male led movement of social reform saw education of women as strengthening the institution of the Indian family and raising the quality of family life, but no public roles were envisaged for women. The contribution of the large band of some extraordinary men, philosophers, educators, leaders of the reformed Hindu Church (the Arya Samaj, the Brahmo Samaj, the Rama Krishna Mission, the Khalsa Diwan, the Dev Samaj, the Prarthna Samaj, and several others) is immense as it lifted women from the substratum of society, from subhuman existence to a level of relatively greater human dignity. This humanism of the social reformers, several among whom also spearheaded, 'cultural revivalism' by harking back to the golden period of women's education and status in the Vedic era, dominated the nineteenth century. These reformers felt that women, if educated, could lead the decadent Indian feudal society from its morass of immorality by acting as custodians of the finer aspects of the Indian tradition and felt that "... denial of education and early marriage prevented the development of the personality and rationality of women. Stunted and crippled personality affected the harmony of the family

atmosphere weakening the bonds of the family." (Nayar, U. 1988.)

However, the leadership of the nationalist movement offered women limited a participation to begin with, even though an extraordinary woman, Lakshmi Bai of Jhansi, had helped light the torch of freedom as early as 1857. In the late nineteenth century, a handful of women got involved in revolutionary activities and challenged their leaders' refusal to allow them to participate fully in the freedom movement. As the freedom movement became mass based, women's participation in increasing numbers became visible and they began raising some basic questions about their rights. This phenomenal awakening of Indian womanhood found its most striking and significant expression in the various representative organisations that rapidly sprang up all over the country and in the establishment of a number of pioneering institutions founded by prominent women for the advancement of women in educational and other fields. (Government of India, Ministry of Human Resource Development, Country Paper for the Fourth World Conference on Women, Beijing 1995.) This then was the historical process which earned women not only equality in the Constitution of India but even protective discrimination from the state for neutralising the cumulative disadvantage of several millennia. Among the large number of framers of the Constitution, along with sensitive enlightened men, there were women who wrote the charter for an Indian society based on justice, equality, liberty and dignity of the individual.

In conclusion, this period was marked by social and political activism and is notable for substantial progress of women's education and status. As regards the study of women's education and women's issues, this period can thus perhaps be seen as one of *Philosophical analysis* when a spate of writings, commentaries, official reports, memoranda and newspaper reports provide us with accounts of the prevalent theories, concepts and practices of female education.

Post-Independence

Women's education has been an area of major policy concern since Independence and is seen as central to the social, political and economic development of the nation and of women themselves. Three significant but different strands of the morphology of the study of women's education need to be analysed and understood; (i) university research in the area, (ii) the contribution of policy-making expert groups, commissions and committees, and (iii) the growth of policy research with perspectives from feminism and women's studies.

University researches on women's education have largely been carried out in the Departments of Education leading to the degrees of Masters in Education (M.Ed.) and Ph.D. in Education, occasionally Departments of Psychology, Sociology, History and, most recently, in Economics and Political Science. As for all educational research, so for women's education, the influence psychology, primarily psychometry, is evident in the studies reported in the early phases. Whereas all other social sciences graduated from their totally Western orientation to more field-based work, thus evolving a body of knowledge about grass-roots Indian reality, education continued to be insulated from methodological and conceptual advances of the self-critical social sciences that were making a bid to give knowledge the status of an active agent of social analysis and social action. Although there has been a considerable amount of research on women's education in the university system, the works have largely remained confined to library shelves. The impact of these researches on policy formulation and action in the area of women's education and development has been negligible.

As in the pre-Independence period, the conceptual frameworks and concerns about women's education have emerged from other sources. The work of the committees and

commissions headed by eminent men and women have guided action and given a thrust to education as part of planned socio-economic development. Basic issues of access, management, and content have been settled through debates emanating from these astitute groups till finally the first National Policy on Education, 1968 was adopted, settling questions like co-education and unidfferentiated curricula in the framework of 'equal opportunity'. For instance, the debate about a separate curriculum for boys and girls was put to an end by the Committee on Differentiation of Curricula headed by Hansa Mehta in 1964. The position alternated from separate (Radhakrishnan University Education Commission 1949) to the same curricula as recommended by the Mudaliar Secondary Education Commission (1953). The Durgabai Deshmukh Committee on Education of Women (1959), which formed the main sheet-anchor for the development of programmes of women's education, took a very forward looking stance by suggesting among others, home science as a compulsory subject for both boys and girls for Classes VI, VII and VIII. The Education Commission 1964-66, headed by D.S. Kothari, also supported equal educational opportunities in all fields of education, for both girls and boys (Nayar, Usha 1995). The recommendations of this Commission formed the basis for the First National Policy on Education 1968.

The shocking revelations of the Census of India 1971, were the constantly declining sexratio and work participation rates of women, higher unemployment, higher morbidity and mortality, lower literacy and educational participation among women. Vast differences in the status of women across groups, classes and regions, were noted and explicated by the Committee on the Status of Women in India (CSWI) which submitted its report 'Towards Equality' in 1974, ahead of the International Year for Women (1975). This CSWI report not only became the basis for the setting up of institutional structures with the focus on development of women and children, but also

led to the rejuvenation of the women's movement spearheaded by feminist scholars and activists. These events were coterminus with the developments on the international scene during the UN Development Decade (1975-85) and the three world conferences on women held in Mexico, Copenhagen and Nairobi. All national and international networks of women activists and scholars, the national government and the international organisations began seeing women's education and development as integral to human growth and development. The Sixth, Seventh and the Eighth Five Year Plans show the shift from the earlier perception of women as recipients of welfare to their becoming active agents of development (Nayar, U. 1991b). The 1986 policy on education (NPE 1986) is a landmark in the evolution of the status of women in India in that education has been given the mandate of bringing about women's equality and empowerment through revised curricula, reorientation of educational personnel and making women's studies the drive-arm for generating studying and supporting action. It is important to note that the researches generated by the pioneering women's research centres such as the Research Centre for Women's Studies, the SNDT University, the Centre for Women's Development Studies (CWDS), Delhi, the Institute of Social Studies Trust (ISST), the Centre for Women's Studies, Trivandrum, and the other two Women's Universities-Mother Teresa (Tamil Nadu) and Padmavati (Andhra Pradesh)—the Indian Institute of Education, Pune, and the Department of Women's Studies, are noteworthy. The NCERT took the initiative to set up the first Chair in Women's Studies in the country in 1988. The researches that have emerged from these centres have had a definite influence in shaping not only educational policies, plans and programmes but also in giving a direction to the national effort in the area of women's development as equal partners in a secular democracy, and in bringing home the centrality of women's education to women's

empowerment as a non-negotiable area of societal progress and enhancement of women's status. After 1986, the researches have not only emerged from women's studies centres on their own, but a lot of policy researches have been commissioned by the national government and the UN, UNESCO, UNICEF, ILO, WHO and other international agencies like the Commonwealth Secretariat. The researches reported in the Fifth Survey of Educational Research (not exhausive, only illustrative) indicate that while the universities appear to be getting somewhat more sensitive to problems of women and girls from different groups of the population, especially the disadvantaged sections, they are not influenced by feminist perspectives of women's studies except in the three women's universities and the women's studies centres in the country.

EDUCATIONAL RESEARCH

In an extensive bibliography on women's education up to 1965, a total of 976 entries comprising books, articles, government reports, M. Ed. and Ph. D. dissertations are listed (SNDT Women's University 1968). This is a pioneering effort in the study of women's education. The bibliography reports 147 M. Ed. and 4 doctoral dissertations. Naik, C. S.'s (1949) doctoral work on Education of Women in Bombay Province, 1818-1947, is a comprehensive analysis of the education of women in Bombay Province till Independence. Other doctoral reports are of those of Kirtikar, P. (1952) on Education of Women in India during the British Period 1800-1917; Jain, K. (1954) on Personality Studies of Adolescent Girls. All three are from the Bombay University. The doctoral work of Visvasam, D. J. (1963) on Programme of Physical Education in India from Madras University needs to be noted for the very fact that this area has been in limbo ever since and needs attention. Of these 147 educational research studies, 51 (33%) are focused on the development of female education in India and its progress and

problems for the period 1800 to 1960, one study, going as far back as AD 1700, tracing the development of women's education in the Madras Presidency. These studies are primarily descriptive, not very analytical, accounts of the evolution of women's education during the British period and in Independent India. Sixteen of these studies focus on the academic areas of achievement, educational backwardness, ability, attitude, interest in subjects, aspiration and motivation; 11 are on physical education, sports, music, art, girl guiding and other co-curricular activities. Other major areas covered are education and society and social change, the impact of socio-economic background on students and teachers (11); vocational and technical education, career guidance (10); problems and attitudes of women teachers (13); primary education (10); wastage in education (4); and women and employment (4). Eighty of these studies had schoolgirls and fourteen college girls as subjects of study besides others. There were five studies on the problems of adolescent girls; two on the status of women as reflected in literature; and one each on women's organisations and educational administration.

Allahabad University and Bombay University contributed 27 researches each; followed by Lucknow University, 13; Madras and Sagar Universities, 11 each; Vikram University, 8; Punjab and Patna Universities, 6 each; Osmania and Delhi Universities 3; Rajasthan, Poona, Punjabi, Agra, Jabalpur and Aligarh Universities two each; and Gorakhpur and Utkal Universities one each (Ibid.).

The first systematic effort at documenting educational research was made by the National Council of Educational Research and Training (NCERT) when it published the titles of M. Ed. and Ph. D. theses in education completed during 1939-61, with a supplementary updated publication in 1966. M.S. University of Baroda brought out the First Survey of Research in Education (1974) covering researches completed up to 1972. The Second Survey of Research in Education, covering the period

1972-78, was brought out by a few motivated researchers of an NGO in Baroda. At this juncture, NCERT took the historical decision to institutionalise this project and since then has brought out the Third, the Fourth and the Fifth Surveys of Research in Education. An analysis of the first four Surveys brings out the fact that women's education which concerns half of our population has not been given adequate attention. In the First Survey, only 22 studies, accounting for 3% of the total number of 731 studies, were devoted to women's education; in the Second Survey, 5.60% of the 839 reported studies; and in the Fourth Survey, 0.91% of the 1,652 studies reported. It may be pertinent to point out that in the first three surveys there was no separate section on research on women's education. In the Fourth Survey, a separate section was included but while planning the Fifth Survey, the earlier decision to have a separate section on women's education was reversed. It was on specific insistence and demand that the section on women's education was reinstated. In the bargain, 54 studies included under various heads were pulled out from various sections/areas, and to give a more comprehensive picture more than 40 additional studies were identified for inclusion. However, it is important to state that these ninety odd studies in the Fifth Survey are not the universe; at best these can be said to indicate the general tone and trend in this area. Further, due to procedural constraints, there would be several studies with sex/gender as a variable in different sections of the Fifth Survey. Therefore, this trend report on education of women would have to be read in conjunction with the other sectors to get a more accurate picture. A bird's-eye view of the first four surveys and a detailed analysis of the Fifth Survey follows.

The First Survey (1974)

As noted by us, the survey has included 22

research studies on women's education, of which 21 are doctoral dissertations (13 in education, 1 in history, 4 in sociology and 2 in psychology) and 1 district study by the Government of India. The topics covered include development of women's education (8); attitude of university girls towards military training (1); education-society linkages (4); and at least seven studies on personality and personality disorders of adolescent girls. Of these 22 studies, 14 are on college and schoolgirls in urban areas; 6 studies used secondary data only; all others were empirical and primarily concerned with female students. Only one study attempts to interview parents to elicit their views and attitudes about girls' education and the problem of enrolment and retention (Mehsana Study, Government of India). There is one study on the development of leadership in adolescent girls; the rest highlight only the problems of adjustment and other personality related questions regarding adolescence.

The Second Survey (1972-78)

In this survey, 47 researches on women's education have been identified, of which 28 are doctoral dissertations and the rest are independent researches. This is a marked shift from the First Survey. Among these doctoral researches, 20 are in education; 3 in sociology; 3 in psychology and one in home science. There are only three dissertations devoted to women's education and development, and only one study deals with the primary education of rural girls.

The Third Survey (1978-83)

Forty-six studies on women's education and related issues are noticed in the Third Survey. Of these, 32 are doctoral dissertations, 17 in education, 6 each in psychology and sociology, and one each in economics, political science and home science, besides 14 independent

researches, Compared to the earlier periods, the interest in the development of female education per se is limited to only one dissertation; only two studies deal with academic achievement and intelligence; two with self-concept; one with truancy; and six with behavioural problems of adolescents. At least eight studies are concerned with the impact of education on the status and achievement of women. In all, nine studies are noticed on women and work, of which six are about women teachers. Only one study is focused on rural women, one on Scheduled Castes and four on Muslim women. One study is devoted to early childhood education. Likewise, one study each is noticed in the areas of vocational training needs, statistics on women's education and political socialisation. Only two studies each are devoted to the rather important areas of financing of education, nonformal education and primary education, and one to adult education.

The Fourth Survey (1983-88)

In the Fourth Survey, in all 68 research studies on women's education and development are available. Of these, 47 are Ph. D. works and 21 are distributed over education (11), psychology (11), sociology (3), English (1) and social work (1). Three researches are devoted to development of women's education and another three to achievement, and one each is on physical education, sports and music. There are five studies on social change amongst women, two related to vocational education and occupational preferences, and six on women teachers. As in the previous surveys, problems of adolescent girls are the focus of eight studies. Again, there are at least eight studies on women and work noticed, of which four are concerned with working mothers. There are as many as seven studies on personality, psychological and behavioural problems of girls. There are four studies concerned with female adult education and two in the area of non formal education; three deal with the problems of wastage and educational backwardness. During this period, the problems of rural girls/women (3), ST girls/women (5), SC girls/women (4), have received attention. An interesting investigation is gleaning women's education its forms, methods and effects from the works of the major women novelists of the 19th century.

The Fifth Survey (1988-92)

In the Fifth Survey, the 95 studies on women's education and development are largely in education, 56 for the award of the Ph. D. degree and 12 for the M. Phil. degree in education. There are seven studies in psychology, three in sociology, besides 16 independent projects and 8 published articles/ books. There are at least 20 studies which have been done from the perspective of women's studies. This is a major departure from the previous surveys. It may be important to point out that women's studies were formally introduced in Indian Universities in 1984. The NCERT created its Department of Women's Studies in 1987 (earlier, the Women's Education Unit).

In the Fifth Survey, only five studies are devoted to the general theme of women's education and two studies are noted in the area of achievement, and seven in educationsociety interface. There are five studies on vocational education/career choices/guidance and at least 19 studies in the area of women and employment (the economy) but only one in the area of women and the polity. Three studies are devoted to primary education, and five to wastage/educational backwardness. Only three studies are devoted to adolescent girls; but at least five studies are devoted to rural girls and women; two studies are on population education; three on gender bias in textbooks; and three are on adult education. There is only one study on women and media, two on self-concept, and another two on personality. This report includes two studies of the discipline of women's studies done in the West. Broad categories of areas/topics in the Fifth Survey are summarised covered below also included are researches done in the West on some crucial areas and some carried out in the developing countries.

Development of Women's Education

As is evident, the development of female education in India has received considerable attention from researchers. It is interesting to note that the largest number of dissertations up to 1965 were devoted to this important area. It may also be necessary to recall that at the time of Independence female education was poorly developed. Only 8% of the female population was literate and 25% of girls were enrolled compared to 61% boys in the primaryschool age-group; and only 4% girls of the relevant age-group were enrolled at the middle stage compared to 21% boys. Also, the number of educational institutions was much less compared to the requirement, and the access for girls was lower. In the First Survey (1974), eight researches were reported in this area; five in the Second Survey (1972-78); one in the Third Survey (1978-83); three in the Fourth Survey (1983-88); and eight in the Fifth Survey (1988-92).

Of the reported researches in the Fifth Survey, Wasnik, S. G. (1989) presents the situation of education amongst the women of the Mahar community in an urban setting. For the historical reason of a very strong pro-Scheduled Castes reform movement, the educational participation rates of urban SC women are very heartening despite the fact that these women were residing in slum areas with meagre facilities for studies. The study points out that despite receiving education, Mahar women continue to suffer from socioeconomic and cultural deprivation and cannot compete with educated upper castes women in the employment market. Swami, S. (1990) also makes a critical study of women's education in nine districts of the Vidarbha region for the period 1947-87 and points out substantial progress at the primary level, but higher wastage and stagnation amongst girls, the primary reason cited being a lack of separate schools and women teachers. In higher education, girls were found largely in general education, with only a few going in for technical and vocational education. Ratnaveni, S. (1991) identifies the factors that constrain women's higher education in Andhra Pradesh. This study analyses the impact of socioeconomic background factors on the education of women and recommends very strongly more research on education and employment status of women, and provision of more educational facilities and job-oriented courses (part-time and full-time), both through formal and nonformal streams, with a greater role for distance education and open unviersities. Liankhuma, J. (1989) points to the initiative taken by the Christian missionaries as far back as 1904 in setting up formal schools in Aizwal. This early start and a very egalitarian social structure made for a tremendous advance in women's education in Mizoram. The literacy percentage amongst women rose from 0.14% in 1901 to 54.91% in 1981. A district study by Ganesan, P. (1989) charts out the growth of women's education since Independence in the Pasumpontheval Thirumagan District of Tamil Nadu, and makes projections for the educational requirements of women by AD 2000 in the district, using trend analysis. Eusebius, P. (1989) identifies problems such as dearth of trained teachers, poverty and social restrictions that account for the slow growth of higher education amongst women in Uttar Pradesh during 1947-67, despite a substantial effort made by the state which did result in a rise in girls' enrolment in colleges and universities. The above studies are interesting in that the state, region, district, caste and tribe have emerged as categories for analysis.

Education of the Girl Child

Navar, U.'s (1989a) situational analysis of the girl child in Rajasthan (UNICEF sponsored) formed the basis for the formulation of policies and programmes of education of the girl child in Rajasthan against the backdrop of the Seventh Five Year Plan and the thrust of the 1986. The major findings and recommendations of this policy research are: (1) The provision of schooling/educational facilities for girls is low and its utilisation is still lower on account of social, economic and attitudinal barriers and sheer physical distance. (2) The curriculum and its transaction remain sex-stereotyped and biased. (3) The educational and the health interventions for raising the status of women have to be made early in their lives, which is an indication to focus on the girl child. (4) Investment in a girl child is an assured investment in the future of our nation; hence it is essential to earmark budgets for girls. (5) A system of differential inputs would need to be evolved for removing the existing regional imbalances in education. This would require flexibility in the norms for opening institutions, school timings, alternative communities and scattered populations. (6) ECE would have to be a major strategy for reaching girls, and preparation of the women teachers/ instructors of NFE is a major challenge for Rajasthan. (7) Poverty and hunger are listed as the chief causes of non-enrolment and nonattendance of girls. (8) Local women be mobilised for forming action groups. But even among poverty-households, boys are given preferential treatment. Furthering the education of girls and women can be done using the existing WDP (Women's Development Programme) of Rajasthan. (9) Participation of women in the Panchayati Raj institutions and all modern professions and occupations would definitely raise the motivational levels of parents to educate their daughters. (10) Early marriage spells unsafe motherhood; thus retaining girls in the educational system till 18-19 years is what educational planners

should try and ensure. (11) Raising the educated employment potential of women through increased job opportunities would enhance girls' participation in education. (12) Female education has a more favourable effect on participation rates in the rural areas. More schools are needed and education has to reach the doorstep of the girl child in far-flung habitations through part schools, mobile schools and distance education. (13) If working girls are to be drawn to school, they must find the promise of a better future, as individuals and as workers. The education of working children (girls) needs better conceptualisation and a different treatment, for such children already have some life-skills and need to integrate these with literacy. (14) A major challenge before the educational development planners is to find enough resources to make a universal provision for UEE. The recommendations of this study were utilised by the Department of Education, Government of Rajasthan, in developing major programmes and schemes for promotion of girls' education at the primary level.

Nayar, U. (1989b) also made a situational analysis of the education of the child in India, with the focus on girls, from a gender-equality perspective. The study found that the learning opportunities available to the Indian girl child in the real-life situation throughout the lifecycle are very low. Only 10% of children below six years of age are covered by Early Childhood Care and Education (ECCE). Disaggregated data of ECCE is not available. Universalisation of 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 serious under provision in rural areas. At the secondary level the gender gaps increase and girls are found in the arts stream largely or in genderstereotyped vocational courses available to less than 8% of the age-group. The curriculum, howsoever comprehensive on paper, gets reduced to a mere syllabus for academic subjects and, further, has a clear class and sex bias. The study was utilised for UNICEF; India programme.

A UNESCO-sponsored study on Problems of Universalisation of Primary Education of Rural Girls in India carried out by Nayar, U. (1991a) recommended: (i) the setting up of a national mission on universalisation of primary education; (ii) development of a more comprehensive HRD policy; (iii) the setting up of realistic targets to be backed up with concrete budgeting provisions; (iv) considering rural areas not as an aggregate since the size of the villages vary enormously; (v) women and girls to be treated in disaggregated categories of caste, class, region, religion; (vi) identification and preparation of talented rural girls through specially formulated programmes and schemes to meet the present serious shortage of women teachers in rural areas; (vii) identification of potential drop-out girls and their retention through suitable strategies; (viii) the setting up of women's education cells in all departments and at all levels of education for monitoring the progress of girls' education and supporting the same through research, training and development; and, above all, (ix) mobilisation of women and the community to act as active agents of girls' education.

On the heels of the above study, a major national study (Navar et al. 1992) done on a sample of 3,000 households, located in the urban slums and rural areas of Delhi, Bombay, Orissa and Rajasthan, identified factors of continuance and discontinuance of girls in elementary schooling, which was a departure from the earlier studies which only studied the phenomenon of drop-out. This study made a methodological contribution by (a) using the household as an entry point and (b) studying the phenomenon of non-enrolment and dropout separately, and (c) using participatory research, making parents, the community and the girl child herself a partner in identifying the problems and their likely solutions. The major correlates of continuance were better economic standing of the household, parental education and motivation, and a supportive home

climate. Drop-out occurred largely on account of the load of domestic work and sibling care as the chief causes in addition to the pressure of collecting fodder, fuel and fetching water, and involvement in wage-earning activities, their own or those of their parents. The cultural barriers identified were onset of puberty, and early marriage leading to withdrawal of girls, lack of separate schools at the middle stage and lack of women teachers. The drop-out is extremely heavy after the primary stage, where the middle school is located outside the village. Gender discrimination was found evident in intra household distribution of food, health care, education, play and recreation. The girls expressed their feelings of being discriminated against compared to their brothers. Parents have substantially lower academic and occupational aspirations for girls and are unwilling to spend money on non-tuition costs, for items such as books, uniforms, stationery, shoes, etc., because they consider girls as temporary members of the household and a poor investment. The reasons for nonenrolment were somewhat similar but it was evident that it was lack of schools close to the habitation that deterred the parents. The study brings out the need for disaggregated analysis and differential planning inputs at the micro level for improving the educational situation of girls across castes, classes, tribes, rural/urban areas and ethnic and religious affiliations.

Duggal, J. (1992) made a micro-study of access of Scheduled Castes girls to elementary education in rural Haryana and found that physical facilities in the sample schools were inadequate and their utilisation was even lower. The proportion of schoolgoing girls was higher among SC parents who were skilled workers in government, semi-government or private service or were self-employed. The incentives provided by the state government were inadequate and were not received on time. Parents perceived that male teachers discriminated on the basis of the sex of the students, which had a negative effect on the continuance of girls in education. Co-education

and shortage of female teachers in rural areas played a negative role in retaining girls in school. The percentage of SC female teachers was low at the primary level and still lower at the upper primary level in comparison to women teachers of other communities. The main motivation for SC parents to enrol their daughters in schools was to improve their marriage prospects and possible employment in future; make them acquire better communication skills and prepare them to have better treatment at their matrimonial home. Exposure to the media had a positive effect on the educational status of all the SC girls.

Singh, V. (1988) investigated the extent and causes of drop-out among girls in the rural schools of Chandigarh. The study found that the drop-out rate of rural girls was higher at Class I in the primary stage compared to other classes; with this rate going down in the higher grades. The girls were generally weak in English, mathematics and science. Parents were unwilling to send their daughters because of domestic reasons. The Jat and Saini communities engage their daughters on the fields to look after the cattle. Muslims marry off their daughters at an early age, and SC families are generally poor and sometimes force their daughters to support and supplement the family income by cleaning utensils. Further, lack of interest, illness and weakness in studies, stepmothers, large family, parental illiteracy, parental illness, the social factors of early marriage, and orthodox thinking are other causes for drop-out.

Two studies have attempted to assess the causes of girls dropping out from high school classes. Pandit R.V. (1989) and Ray, Jognte (1989) found that the drop-out percentage is higher in the lower castes groups; unfavourable social ethos and prevailing unsafe conditions deter parents from sending mature girls to co-educational schools. The drop-out rate is higher among illiterate families; unemployment creates a negative attitude amongst parents; young male teachers

are a substantive cause of withdrawal of girls. Other major school factors are: inconvenient school timings; distance from 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. Girls face difficulties in English, science and mathematics in Classes VIII to X. The study also suggests that given the socio-economic constraints, the availability of a school in the village will certainly help girls to continue schooling.

Another study of drop-out and nonenrolment among girls in rural Haryana by Navar, U. et al. (1992) brought out that dropout and never-enrolled girls belonged to belowsubsistence level households. Parents pointed out that education was not cost-free and they found it difficult to meet non-tuition costs like uniforms, books and money for Boys Fund, Red Cross Fund, etc. Domestic work and sibling care were the chief reasons for the girls' not attending school. From fetching water, fodder and fuel to care of livestock, washing, cooking, cleaning, looking after the younger siblings were the tasks that kept these girls busy. Increased agricultural prosperity has brought misery to women's lives as the number of livestock has increased substantially, and all of it means more and more work for women and girls. The demand for women teachers was strong in the Mewat area, as also the need for Urdu teachers. The drop-out girls, however, expressed their willingness to return to school (which most of them had liked) given an opportunity. The parents of such girls were apathetic and had lower educational and occupational aspirations for daughters as compared to sons and saw girls as less equal than boys. Access is not much of a problem in Haryana as all villages, barring some dhanis (hamlets), are served by a primary school. The drop-out is negligible in the age-group 6-8 years, and is the maximum after Class V. Nearly all women teachers commute to villages from cities and towns, and hence did not interact with the communities, nor followed up the drop-out girls. The study recommended: rationalisation of teachers between rural and urban areas to ensure at least one woman teacher in every primary school; opening of junior primary or feeder schools in unserved dhanis; extension of incentives of free books. uniforms and stationery to all girls in povertygroups, regardless of caste; a noon meal; extending child care facilities within/near the school to free girls from sibling care; better coordination with ICDS (Anganwadi); creating a positive climate for girls and their educational development and breaking the curse of low valuation and poor status of women in a materially prosperous state.

Action Research/Intervention Studies

Sinha, S. (1991) documents an action research intervention in the form of a girl child camp of 200 girl students of 20 villages by an NGO, in a village of Hyderabad. Most of them belonged to the age group 8-14 years and had left their home for the first time. Most of the girls were fully conscious of the better opportunities accorded to their brothers and said they could do all the work done by boys. Throughout the discussion the girls expressed their desire for learning. It was reflected in the discussion that parents consider education a luxury for the girls. They will let them study only at night after all the tasks are finished. It was clearly obvious that, for most of them, the desire to study was very strong. The overwhelming response of the girls and the sparkle which the girls managed to generate proved to be an eye opener for the NGOs. The specific focusing of attention on the girls led to greater sensitisation on the issues of gender discrimination. The camp provided an opportunity to the girls to think about some issues, and over a period of time it may help the organisation to plan more meaningful programmes for the girls.

It would be of interest to look at the same

phenomenon as researched in the developed countries. Evans, M.A. (1992) conducted an experimental research assessing the change in the attitudes of ninth-grade students towards science and mathematics. A three-day role model intervention was made with the experimental group. The study found that gender-stereotyping was not pronounced; the participating IX Grade boys and girls like mathematics more than science; girls and boys like mathematics equally well; boys like science more than girls; the attitudes of the girls and boys who participated in the intervention improved more than the attitudes of the boys and girls in the control group.

Vocational, Technical and Professional Education

A study by Bisaria, S. (1991) stresses need based vocationalisation of education for girls; it found fifferent groups of girls with distinctly different needs. Those in school wanted to learn skills for self-employment. The out-ofschool working girls wanted education so that they could do their work without the help of intermediaries and with better skills. The girls studying in industrial/technical training institutes wanted their training geared to selfemployment; their parents, even if well off, sent them for technical education because of their lower academic achievement in order to facilitate their marriage. Nagar (1991) studied the vocational aspirations of educated girls in the Gorakhpur Division of Uttar Pradesh and found there is a consistent pattern of relationship between the intelligence level and the socio-economic status; as the educational level increases, the socio-economic status and intelligence profile shows an upward trend; location, too, exerts an influence; level of education does influence the vocational aspirations of urban and rural girls at all three educational levels primary, secondary, higher. The rural respondents showed the highest preference for household based vocations whereas the urban counterparts preferred scientific areas.

Nayar, U. (1991a) in a Commonwealth Secretariat sponsored study of measures to increase participation of girls and women in vocational, technical and professional education in India, found that: the policy gains of Indian women are substantial but there are serious implementation gaps; the policy of undifferentiated curricula gets diluted in action; gender stereotyping of vocational, technical and professional courses continues both within the formal and non-formal sectors of education and training. Gender stereotypes are harder to break for men as compared to women; the vocational, technical and professional education of women appears to have advanced relatively faster in the major industrial states of India, viz., Tamil Nadu, Maharashtra and even in low literacy Andhra Pradesh. Rajasthan with the lowest female literacy rate in the country is also low on industrialisation and spread of technical education; women work in traditional crafts typed as female. All vocational, technical and professional institutions and training is urban located, urban-led, and excludes rural girls and women completely. Even nonformal income generation skills development courses for rural women are organised away from the rural areas. The NGOs working in this area are also urban based. The problem is more fundamental in that rural girls at best have access to primary schooling as the number of post primary institutions in rural areas dwindles sharply with every successive higher level. In 1986-87, there were 475,823 primary schools/sections, 113,087 middle schools/ sections, 38,862 secondary schools/ sections and only 7,136 higher secondary schools in rural areas, serving 579,149 inhabited villages and 981,864 rural habitations. Only one of every 100 rural girls entering school was able to reach Class XII, the entry point for all secondary and third level technical and professional education. The nonformal education/training programme are at times too short (6 days to 6 months) in

duration, lack professional management and trained instructors, do not give training in selfemployment, marketing and entrepreneurship, and, hence, end up with providing shoddy skills that are unsaleable. The study suggests that gender sensitisation of planners and curriculum developers can yield positive results in breaking stereotypes and getting girls and women to enter non-traditional vocations. Career guidance and counselling are needed not only for girls, but for the teachers and the parents as well. Besides expanding the educational facilities, the quality of teaching of science and mathematics to girls needs to be improved as many girls get disheartened and give up these subjects as soon as they can. Some states continue to make the mistake of allowing girls to take up home science or domestic accounts in lieu of mathematics. School textbooks need to be screened for poor presentation of women who are shown in domestic roles only. Alternately, women are present in a large range of traditional and modern occupations including some very off beat ones. This reality needs to get into textbooks and into teacher education.

Academic Achievement, Interest, Ability, Motivation, Aspiration, Learning

In this very vital area, there is a paucity of research. By 1965, only six studies were reported (M.Ed. dissertations) in this area. No such study was reported in the First Survey (1974). In the Second Survey, three studies were reported, and in the Third and the Fourth Surveys, two and three, respectively.

In the Fifth Survey, this area seems to have received some attention but the need for better conceptual and methodological frameworks is evident. Bhattacharya, I. (1991) studied the problem of the scholastic backwardness of adolescent girls in Bengali medium schools in and around Calcutta and found a positive relationship between intelligence and academic achievement. Other factors affecting the achievement of girls were their personality

characteristic (extroversion, introversion), and home and school factors such as attitude to school, to teachers, to subjects of study. The economic and educational status of parents accounted in a large part for irregular attendance of girls on account of the load of domestic work. Absence of regular assessment of class work was found to be another reason that led very often to neglect and delayed action. Timely measures like continuous evaluation and remedial teaching can reduce this phenomenon considerably, suggests the scholar. Kabra, L. (1991) studied the educational backwardness of SC/non-SC higher secondary girls from four districts of Rajasthan, and also found a positive relationship between family education, socioeconomic status and personality correlates. The SC girls showed lower participation in cocurricular activities, lower social adjustment and lower scholastic achievement. Occupational aspirations were significantly related with father's education and scholastic achievement, for both SC and ST girls. Sharma, A. (1989) analysed the personal and social factors affecting the success and retention of girls in science. The study developed the tools of social role models, sex role stereotypes, attitude of parents, teachers and students towards achievement of boys and girls, and cognitive preference styles, in the first phase. In the second phase of the study, the factor structure that underlies the higher achievement of girls in high school was studied. The personal and social factors such as their adjustment, differential treatment of girls, and boys, areas of interest cognition, commitment and attitudes were found to be accounting for the higher success rate of girls in science. The study concludes that women who enter science which is traditionally a male preserve, have already crossed a social barrier and have been found to be more successful than men and attitudinally better established.

Patel, S.B. (1992) administered achievement tests after standardising tools to 3,374 students in arithmetic, 3,263 students of Class

IV in Gujarati in private and corporation schools in Ahmedahad and Baroda. Pupils of private schools were better scorers in both the subjects than those in corporation schools. Both in Ahmedabad and Baroda, the girls in private schools, scored more than the boys in the private schools. In the case of the corporation schools, the achievement of boys and girls did not differ in arithmetic in both cities, but in Gujarati the girls scored more than the boys. There are institutional differences in the performance of students in the four fundamental operations in arithmetic; children from corporation schools show very poor performance in this area. There are sex differences in the performance of the students on the test of the four fundamental operations, the girls showing, by and large, a better performance than boys.

The above studies may be seen in the light of the fact that: (a) girls are scoring higher pass percentages in science and mathematics in CBSE and other Board Examinations, and (b) girls who survive till the secondary/higher secondary stage are from a relatively better off socio-economic background and are largely urban. Also, the academic achievement is class related, better in high fee levying schools. Girls do better if given equal opportunity and if they face no crass discrimination, as do the rural girls, especially those from the poverty groups. Baseline studies on achievement conducted under the District . Primary Education Programme on rural samples report that in most places, girls' achievement was lower than that of the boys but many a time no clear trends were visible. (Singh, S. and Saxena, R.R. 1995; Jain, V.K. and Arora, O.P. 1995; Jangira, N.K. and Ahuja, Anupam 1995). Another study by Busamma, K. 1995 also shows that rural children fared relatively poorer on a standardised test in arithmetic, and the institutional factors were prominent in that students from private institutions were better scorers; also, girls were found to be doing equally well, and at times better.

Pant, D. and Sen, A. (1992) carried out an experimental study to test the learned helplessness model among college girls, on 60 first-year girl students and found that among these girls, the depressed and non-depressed groups differed significantly on both the cognitive performance measures. The performance of the depressed group was poorer than that of the non-depressed group. Among the depressed, non contingent failure leads to poor performance of girls in education. The depressed group attributed their failure to ability and tended to make a self deprecating bias, attributing failure to internal and stable factors. The non depressed attributed their failure more to effort.

Jain, G. (1990) found that both rural and urban (secondary and higher secondary) adolescent girls aspire to study science as their first preference, and prefer government service as a first choice, followed by banking, civil services and clerical work. The aspiration level of both rural and urban girls was found to be average. The study recommends that the utmost importance be given to co-curricular activities and the guidance programme which may be helpful for developing desirable values and personality traits amongst girls.

Several studies have been done by the Department of Women's Studies, NCERT. Nayar, U. et al. (1992) found in a major sample study of 3,000 urban and rural households that parents have substantially lower educational and occupational aspirations for daughters as compared to sons and do not subscribe to equality between the sexes. Parents are unwilling to invest on the education of daughters because they feel that they are temporary members of the household. Similar findings were reported in the District Primary Education Programme Gender Studies conducted by the Department of Women's Studies in 44 low female literacy districts of 8 States, based on more than 13,000 households. (Nayar et al. 1993-94.)

Some Western studies show different trends. Rose, S.A. (1992) studied attitudes of

women towards mathematics and mathematics enrolment in a women's college and a coeducational college. The initial results suggested that in the senior year women at both colleges were similar on the three major independent variables that is, mathematicsmathematics-related attitude. enrolment, and the self reported androgyny of the women. The higher-ability subjects of the womens' college displayed more favourable attitudes towards success in mathematics and took significantly more computer science courses than women of equal ability at the coeducational colleges, suggesting that the educational milieu of a women's college might impact favourably on certain mathematics attitudes and on the course-taking behaviour of women. Sommers, P.C. (1992) tried to assess the levels of need for achievement and gender identity and its impact on female graduate students who have chosen to enter male dominant and female dominant career programmes. The findings show that the need to achieve was high across both groups of women with no significant difference between those who entered male dominant fields and those who chose female dominant paths. Masculine and androgynous identity was prominent among subjects preparing for male dominant fields, revealing a significant difference in gender role identity from those female dominant programmes. Dahlke, L.M. (1992) examined levels of self efficacy and satisfaction of college women seniors and those with five to ten years' college experience, who chose traditional and non traditional careers. The results revealed that college seniors had lower levels of self efficacy and life satisfaction than the postcollege sample women. No significant differences were found between the traditional and the non-traditional career choice.

Self-concept

The study by Madasamy, M. (1992) is innovative in that it attempts to develop a positive self-concept among adolescent girls

through an experimental case study method. It was found that the level of self-concept of adolescent girls increases after implementation of consciously designed intervention programmes. As self-concept is seen related to the desire to learn, it was found that the positive development of self-concept in the pupils is likely to increase their favourable attitude towards schools and enhance their academic achievements. In this study it was found that school factors play a dominant role in developing a positive self-concept amongst girls. Kabra, L. (1991), in a comparative study of SC and non-SC female students, confirms some frequently observed relationships between caste and class as it operates in our society. Family education and socio-economic status were positively correlated in the case of both SC and non-SC girls; the participation of SC girls in co-curricular activities was significantly lower; correlation between the socio-economic and the personality factor (intelligence) was found significant. The majority of SC girls had lower scholastic achievement and a low level of social adjustment. Educational and occupational aspirations and achievement were also class related, and were influenced by the level of the father's education. Dutta, B. (1990) studied the self-concept and personality adjustment of girls through pubescence. Garg, A. (1988) found that the type of educational institution has a significant effect on achievement need and dominance needs. Girls belonging to coeducational institutions were significantly higher in autonomy needs scores as compared to girls in single-sex institutions. Khatoon, P. (1990) investigated the role of education and religion in bringing about a change in selfconcept and alienation among college girls and uneducated girls belonging to both Hindu and Muslim communities. The self-concept of college-going girls was higher than that of uneducated girls of both Hindu and Muslim groups. Bhattacharya, I. (991) found that value-learning improves with conscious educational intervention.

Social Change, Education and Employment

Chanana, K. (1989) compared the social context of women's higher education at two points of time, 1963-64 and 1972-74. It was found that even after a decade, higher education was the preserve of the higher castes among the middle and upper strata of society, even in a cosmopolitan city like Delhi. The proportion of those joining higher education because of their interest in studies increased sharply, and of those who joined for no special reasons showed a marked decline. Nearly 90% would like to work after marriage, subject to certain conditions; also, a larger proportion were planning for a career before marriage. Economic backwardness continued to be a major hindrance in the higher education of girls; the proportion of students from the lower income groups increased only marginally. Choudhary, P.K. (1988) found that educated women are by and large aware of their rights but have only partial knowledge of acts and laws concerning their rights. Awareness about the minimum age of marriage, dowry prohibition, inter-caste and inter-religious marriages, is there but full knowledge of the legal provisions for widow remarriage, divorce, maintenance, adoption, etc., is not there. Educated girls favour: small family norms, use of contraceptives, spacing, equality between sexes, and participation in decision-making. Most of them were against maltreatment of widows among the upper castes. Harassment of brides is on the increase, but, at times, parents give false assurances about the amount of dowry to the groom's guardians and cause misunderstandings. Divorce is supported only under certain specific situations. Among educated girls positive attitudes towards female education, coeducation, female employment and the belief that education and employment provide higher capabilities to women for adjustment in adverse situations, exist. In the erosion of old values educated women are likely to be the prime movers.

Vasuki, N. (1990) found that women of different occupations and age levels displayed favourable attitudes towards women's education. Vanmathi, M. (1992) studied roleexpectation and role performance of women and found that both the men and women in her sample had a similar perception of the role-expectations of women but differed on the role performance of women. A study of educated working women in Chittoor District by Sobhavathamma, I. (1989) found that the majority of unmarried working women had taken a job for economic reasons; the married women face difficulties in meeting the demands of their dual roles. Married respondents report a high level of clash of personal interest between the spouses. The attitudes of women towards male dominated occupations have changed, and more and more women were found accepting these occupations. Singhai, S. (1986) also found that the majority of the college girls of Indore City whom she studied, lay emphasis on employment opportunity. A suitable educational environment influences the development of healthy social attitudes in students. Patil, K.P.S. (1988) interviewed teachers, doctors, engineers, pleaders and retired persons, and found that they all had a positive view of the impact of education on the status of women. Education, they felt, can help women progress and develop professional skills and a high degree of self-respect. Mutalik, S. (1991) found that education has a significant correlation with the acquisition of social awareness. Gokhale, P.P. (1991) studied women of the Vidarbha region and found that radical social reform movements, feminist movement, industrialisation and technological advancement have brought changes in their attitudes in general, although cultural variations exist.

Hota, S. (1990) studied working women's perception of their self and the environment in relation to job and life satisfaction. The study found that: (1) skilled workers had a positive perception of their self in all the six dimensions of self-concept in comparison to semi-skilled

and unskilled workers; they differ significantly from both semi-skilled and unskilled workers; (ii) skilled workers perceived their environment as more congenial and unskilled workers perceived their environment as less congenial and less cooperative than the other two groups; (iii) skilled and semi-skilled workers had the highest job satisfaction, and dissatisfaction respectively; (iv) women in skilled jobs were found more satisfied in their lives than women in semi-skilled and unskilled jobs; (v) out of the six dimensions of self-concept, the educational and intellectual dimensions were found significantly related to job satisfaction, while physical, social, temperamental and moral values were not significant and, (vii) selfconcept was found contributing towards life satisfaction.

In a study of migrant industrial workers' families and their attitudes to education, Gokhale, L. (1991) found that migrant women played an active part in decision-making at home and showed greater health and political awareness, the most important background variable related to work satisfaction. The preferred elements of job satisfaction are: job security, adequate salary, the chance to use one's skills, adequate chances for promotion, and opportunities for self-development through training. The group studied showed they were more work oriented than family-oriented. The barriers faced included tradition-bound parents, community restrictions, inequality between men and women, non-cooperation of husbands and the burden of their dual role resulting in physical and emotional limitations. Tripathi, R.P. (1988), in a study of the progress of labour absorption for educated persons, including women, found that the increase in the educated labour force was faster than employment for educated persons due to expansion of higher education. The major findings of the study are: (i) the proportion of employment for the educated persons in the total employment has increased more than the increase for the proportion of employment for other than the educated; (ii) the increase in the educated labour force has been so rapid due to

expansion of higher education that employment for educated persons did not keep pace with the increasing supply of educated persons; (iii) the proportion of the educated unemployed to the total unemployment has increased, and the proportion of unemployed of other than the educated has declined during the period (1971-81).

Fatima, N.J. (1989) found that women with higher education had a favourable attitude towards girls' education, adoption of the family planning methods and shedding of the social evils of dowry, casteism, and communalism. Secondary and higher professional education amongst women has a positive effect on their occupational mobility and employment. Kakati, K.K. (1989) found that though husbands and parents were in favour of employment of their wives and daughters, respectively, household work was still the responsibility of the working woman herself. The positive gains of employment were perceived to be that working women played the role of decision-makers to a great extent and enjoyed freedom of movement outside their home. In turn, this freedom of movement was found positively related with their age, education, occupation and income. This whole ambience creates a new awareness in their minds which, in turn, strengthens their claim towards equality. Rajvanshi, J. (1991) on the other hand states that in spite of improved status and education, the employment of women has had only a marginal influence on the patriarchal structure of the family. The study, however, found a clear association between higher educational and occupational aspiration, with working women viewing their occupation as utilisation of education and achievement of economic self-dependence. Further, higher education of girls resulted in late marriage, and employed girls seemed more selective in the choice of marital partners. Working women enjoyed a better status compared to non-working women but also reported greater role-conflict.

Upmanyu, K. (1991) found that working

women have a low anxiety-level compared to non-working women; depression in nonworking women, was marginally higher as compared to working women and non-working women were found to be more rigid than working women. Sundaram, N. (1991) studied the senior generation of women entrepreneurs who had formed a body with the title "Women Industrialists of Maharashtra Association". These women entrepreneurs were following generally stereotyped trades which were, in fact, largely home-based; education and training definitely improved entrepreneurs in business. Srivastava, K. (1991) found no significant relationship between job satisfaction and some personal traits of professional women such as age, educational qualification, income and professional experience, among women of different professions.

Singh, S.B. (1989) found that there was no significant difference among children of working and non-working women, regarding scholastic achievement.

The findings of Lanjewar, A.S. (1989) that the majority of the unemployed educated women in the sample belong to the Scheduled Castes, who had received vocational training in English typing and needed jobs very badly, were even willing to move to another part of the country for employment. Such findings make one sit up as the Scheduled Castes enjoy reservation in jobs and many a time the vacancies remain unfilled. Does it imply that there is gender bias even in the reserved posts/categories?

Kantamma, K. (1990) found that the higher the education of women, the greater their participation in decision-making and in interspouse communication; and they hold a progressive opinion on different issues. Jaiswal, R.P. (1989), in a comparative study of male and female scientists and engineers, found that women have yet to achieve equal status with men. Considering that these are women with a very high educational and

occupational status, their continued subservience to traditional male authority shows the hold of patriarchy. Louis, M.J. (1989) studied 200 women executives, all of them hailing from middle-class families; they had received positive reinforcement from their families, the teachers being the prime motivators. These women had high aspirations. excellence in academic performance, better self-confidence, positive self-image. independent thinking, sincerity, hard work and duty consciousness, and further, were courageous and innovative.

Women Teachers and Administrators

Navare, S. (1991) developed a case study of primary school-teachers of Pune Corporation belonging to the Scheduled Castes in the light of the substantial educational and social measures taken in Maharashtra to improve the position of the Scheduled Castes. SC women teachers did not show a high degree of ambition or leadership and had a low share in family decision-making. They had received the positive support of their family in furthering their education. The SC as a group tend to live in clusters as they feel alienated from the upper castes. Early marriage is often a hindrance to the higher education of SC women. Pabani, Z. (1992) in a study of status and role of women teachers of the University of Bombay, found that role conflict on account of family obligations seems to interfere with the teaching duties of these women. Herriz, L.B. (1990) made a comparative study of the women university teachers of India and Spain. Indian women teachers were younger, and mostly married, as compared to their Spanish counterparts. Indian women university teachers were better qualified but were found at lower levels of occupation and drawing lesser salary than the Spanish teachers. Indian teachers spent more time on domestic work whereas the Spanish teachers spent time on sports and tourism. In India, the status of these women was determined by the

occupation of their husbands, whereas such ideas were considered erroneous by the Spanish respondents who saw their status determined by their own occupation. Indian women teachers enjoyed better equality of status at work and were more satisfied than the Spanish respondents who seemed discontented with their treatment at their work-place. Indian respondents had higher achievement motivation. The Spanish teachers were working for reasons that were political, theoretical, aesthetic, social and moral, whereas Indian teachers were working for economic values. Tsai, S. (1992), in a study of Taiwanese female secondary school-teachers (University of Texas), examined the stresses and coping mechanism of these women teachers. The study found that the respondents displayed differential impact of social support from different sources and used more active/problem focused coping strategies which they found more effective than passive/ emotion-focused coping strategies. Sanchez T. Gloria (1992), in a study of Colorado female academicians suggests the following for the 21st century female academicians to go beyond the glass ceiling: (i) a doctorate degree is a must for entering top jobs in educational administration; (ii) as mentorship and networking are essential parts of the learning process, women academicians consciously need to develop both strong leadership skills, which are required in administrative careers, as also an understanding of the organisational culture in all its dimensions including the political.

Norman, J.M.D. (1992) tried to ascertain the reasons for lesser success of women than of men in obtaining promotion in secondary education (in the U.K.): The reasons advanced are as follows. Women's disadvantage is prominent in their work-life context rather than in the attitudes and professional capabilities which they bring with them. Although equality of opportunity exists in law, statistics show that there is no equality of outcome. The conflict between different levels

of social organisation obscure the issues and provide a fertile breeding ground for myth. Both men and women teachers show little difference in the quality of professionalism, and yet women lag. The society continues to justify inequality by myths.

Dua, R.'s (1991) study focused on the differences between working and non-working women with regard to their level of adjustment, familial-role expectations, and modernisation. The major findings of the study are: (i) working women yielded significantly higher mean values as compared to their non-working counterparts on the variables of emotional adjustment, expectations for social responsibilities, outdoor work, home management, modern attitudes towards religion, education, family planning, women's status, women's freedom, marriage and caste, whereas the non-working women had obtained higher mean values on the variables of home adjustment, social adjustment, marital adjustment, work expected for children, husband, and for their family members, and also on expectations from family members in comparison to their working counterparts. Sharma, H. (1992), in the review of literature and data on the employment pattern of educated women, suggests that: (i) an appropriate infrastructure for education, training and gainful employment of women needs to be developed; (ii) it is necessary to identify the reasons for the low participation of women in the modernised or mechanised industrial or agricultural workforce; (iii) there is also a requirement to study the impact of the supportive services; (iv) studies on attitudinal changes among educated women workers should be made: infrastructural facilities for entrepreneul development should be studied and provided.

Krewer (1992) (West Michigan University) studied the effect of gender role orientation, socio-economic status and parental influence on university women's aspirations to leadership roles. The study found the women have lower aspirations to leadership roles than men and both women and men, have lower

career projections for females than they do for males. Women have lower career aspirations; their socio-economic status and the level of the mother's education are related to women's leadership aspirations. The students of business and public administration had higher aspirations to leadership roles than those of education.

Beason, J.H. (1992) (Arizona State University) studied female secondary school principals. It was found that the majority of them were white and obtained their first administrative position later than males. They were placed mainly in large school districts in urban area. Suburban area schools are larger in the lower socio-economic areas with more minority students. While male principals face many of the same internal, interpersonal and organisational barriers in their career advancement, female principals continue to face sex discrimination, exclusion from the old boys network, a negative attitude towards women in administration, lack of role models and lack of a professional network. Since the female principals do not have some of the opportunities available to their male counterparts, they rely more heavily on strategies designed to increase their visibility, and develop themselves personally and professionally.

Van Der Eloeg, D.J. (1992) (Colarado State University) made a comparative study of men and women administrators as mentors in higher education. Most of them agreed that their choice of a protege was influenced by their perception that the protege was hardworking. intelligent, enthusiastic, with open communication skills, and one who worked well with others. Significantly, more women listed intelligence, enthusiasm and risk-taking as an influence in their choice of the protege. Both genders reported more same gender proteges. Female more often provided administrators information to the protege on career strategy, visibility, how to keep trying, risk-taking and politics; a significant gender difference

occurred where females also reported personal growth as a major influence in their decision to serve as a mentor. Protege-competence was identified as the main incentive for the administrator to provide support to the protege.

Adult Education

Dash, N. (1991) studied the problems of enrolling rural women in adult education centres and found that the majority of the women learners belonged to the Scheduled groups, low down in the socio-economic scale, and faced social barriers like casteism, untouchability and conservative attitudes of the upper communities, which gave them a sense of inferiority and resulted in lack of motivation and interest on the part of the learners. Only 60% of the centres had some common teaching aids like chalk and board, and only five per cent were equipped with new teaching aids like radio sets, maps, globes, projectors, etc. There was limited success achieved in literacy and numeracy; the vital components of awareness and functional skills were completely neglected. The study concludes that inadequate planning, poor delivery systems and lack of interest and motivation of learners are the factors of the continued problems of mass illiteracy. Trivedi, N. (1992) analysed the non-formal needs of rural women and found that the physical, social and cultural milieu and women's activities and roles revealed that all these have a significant influence on shaping women's needs, perceptions and attitudes towards education, both formal and non-formal. Social and cultural norms and constraints often determine women's access to programmes, information about services and programmes, and their participation. Women were not aware of many of their needs which were complex. In general, high interest was shown in learning income-generation skills. The need in nonformal education for adults is to design programmes that will create a consciousness among people to enable them to analyse their own situation, recognise their needs, and to develop their skills and abilities to transform their lives, thus turning a negative cycle into a positive one that leads to greater awareness, participation, increased self-reliance and empowerment among women. Saxena, R. (1991) analysed the values and ideals embodied in the educational materials for adult women currently in use, as produced by the government and the voluntary organisations. The study found that there is an ideological difference in the approach of the government and the voluntary agency 'Jagori'. The government material was available only as books/booklets whereas Jagori's material was available in the form of books, posters, audio cassettes, postcards, etc., using a feminist approach. The government stresses literacy as the most important tool of education, whereas Jagori uses literacy as an instrument for change and stresses more on organising women in order to alleviate their status and condition. The study concludes that there is a big lacuna between what the government proposes and what it puts out; most of the government materials were found to be discussing and describing the traditional roles of women. Jagori, on the other hand, maintains a balance between what was and what exists, and what it envisions for women in the future. The government is behind times and Jagori appears far ahead of the times, neither of them looking at this issue appropriately. Again, neither the government nor the Jagori materials touch the issue of women's participation in mainstream politics. Sardamma, M.A. (1992) also enquired into the learning needs of Kerala women with a view to evolving a suitable curriculum. The learning needs of illiterate women were found to be linked to their occupation. Most of them were interested in tailoring, embroidery and chair making. As a part of the study, a need-based draft curriculum was prepared for these women. The study recommends creating an appropriate learning atmosphere at the centres and provision of child care services and schools for children and conveyance to help women reach the centres. Kagade, S. (1988) studied the continuing education needs of urban adult women with respect to improving their knowledge of English. The study found that the majority of the adult women respondents have the ability to read, write and comprehend the English language, and were aware of the importance of English in getting a job and for higher education. Acquiring proficiency in conversational English was found to be the main motive for women learning English. Most of the married women respondents desired to improve their knowledge of English mainly because they wished to help their Englishmedium schoolgoing children with their homework. Jain, A. (1991) carried out an analysis and evaluation of the animators' training camps for education empowerment of women, conducted by the Indian Institute of Education, Pune. From the feedback from participants, the following observations were made: awareness was generated amongst the women on health, nutrition, mother-child care, land regulations and legal rights for women; women developed self-confidence through the programme and felt that they should participate in the community development programmes of the village; recreation helped them to overcome their shyness. They realised the importance of girls' education. The information given through this programme has helped in eliminating the superstitious beliefs of these women. Valued information was obtained by these women on the facilities available. The study concluded that the training camps had succeeded in developing self confidence among the animators who felt that they would try to reach out to illiterate women and children.

Population Education

Meera, R. (1992), in an analysis of population education in the secondary curriculum, did content analysis and found that: (i) demographic characteristics were repeatedly discussed in the texts; (ii) the Indian economy was much discussed, with a comparison with the developed countries; (iii) the characteristics of qualitative and the quantitative growth of the human population were emphasised well in Class X; (iv) the dependence on India's industrialisation to improve the economy was responsible for dearth in various ways; (v) the mention of 'quality of life' does not explain the impending associated dangers in Class VIII; (vi) the recognition of the fact that man's higher aspirations of life and needs have increased and causes disruption to the normal course of his life.

Declining Gender Ratio

Singh, H. (1992) studied changes in sex ratio in India in 1901 and 1991, with special reference to urban areas. Sex ratio has not only been unfavourable to women since the beginning of the century but has declined continuously. Regional variations exist both in rural and urban sex ratio. Urban areas have a highly unfavourable sex ratio, in general. The mean age at marriage and the literacy rate explain the variation in sex ratio but it is not significant. Nayar, U. (1991b) found continuous belts of low sex ratio in the northern plains, and a highly favourable sex ratio amongst the tribals. Thus there appears to be a need to study this phenomenon with greater methodological rigour and choice of social structural variables like caste, class, region, etc. The explanations given by some demographers regarding the continuing decline are not convincing enough. The increase in the urban sex ratio also raises an important question that needs to be answered: Is it on account of increased migration of families (rather than single males) or on account of much higher infrastructural inputs of housing, health, water, sanitation, education and employment in the urban areas, leading to lower mortality? The more alarming situation is that of a much greater decline in the sex ratio

in the age group 0-6 years.

Whereas the sex ratio fell by 8 points for all population from 935 to 927 during 1981-91, it fell from 962 to 942 that is 17 points, for the age-group 0-6 years. Out of the 466 districts in India, there are 10 districts where there are 1150 boys and more, compared to 1000 girls in this age-group (4 of these districts are in Haryana, 3 in Punjab, both high productivity states, and one each in Tamil Nadu, Madhya Pradesh and Rajasthan). There are another 55 districts where there are 1,100-1,150 boys per 1,000 girls among children below six years of age. Studies have been commissioned for seeking an explanation for this untoward phenomenon which is likely to cause not only demographic imbalances but also result in social upheavals and crises. At the 1991 Census, there were 32 million fewer females in the total population, of which 4 million were in the age group 0-6 years. India is among the 18 countries of the world where the sex ratio is adverse to females; there is only one country from the developed regions, namely Albania (1943); the rest are from Asia and the Pacific Region-Hong Kong (1939), Brunei (938). Afghanistan (945), Bangladesh (941) Bhutan (933), India (927), Nepal (948). Bahrain (688). Jordan (948), Kuwait (752). Omman (906), Qatar (598), Saudi Arabia (840), Turkey (948), United Arab Emirates (483), Papua, New Guinea (928) and Vanuatu (917). (Nayar, U. 1994b.)

Joshi, R. (1991) studied the rearing practices of schoolgoing adolescent girls in relation to their parents' education and some socio-familial factors in Almora District. The study found that the more educated parents rear their daughters more appropriately as compared to lesser educated parents; upper-castes girls likewise got a better deal; the younger the father, the more positive his attitude, as also that of medium-sized families; increase in family income positively affects the rearing of girls.

Family Planning, Population Policies

Devi, T.V. (1991) found a positive relationship between the educational and socio-economic background of women and adoption of the family planning methods. Padmavati, A.S. (1992), in her meaningful analysis of the population policies of India vis-a-vis women's reproductive rights, finds: (i) there is need for adequate health education for both the sexes about control over sexuality; (ii) the antiwomen bias in the family planning programme and the present mode of incentive schemes should be abolished; (iii) promotion of research on how safe and harmless contraception may become a responsibility shared by both sexes; (iv) regulations on male and female sterlisation to avoid the frequent abuse that occurs at present; (v) women and health services are to be looked at in a continuum that aids women as they go through the various stages of the lifecycle, (vi) to trace the sexist biases and fight against the patriarchal bias in the health care systems as well as in all fields of societyeconomic, social, cultural and political.

Philosophy

Dutta, I. (1988) made a study of the contribution of Iswar Chandra Vidyasagar to the development of education of women in Bengal. The study brought out how Iswar Chandra Vidyasagar spearheaded the awakening of Indian womanhood in the late 19th and early 20th centuries, despite apathy from the government and severe opposition from the social orthodoxy.

The Media

The study of Thomas, P.E. (1992) and Pichandy, C. (1992) tries to elicit the views and interests of women readers of women's magazines with regard to the educative contents of these magazines to cover a wide range of issues from fashion, food, to current affairs, women's rights, traditional and modern roles of women, and women making news. The

mid-West America and found that in all programmes: (1) The related literature illustrated that the purpose of women's studies is to change the sexist, racist, classist world while struggling to understand the world as it exists. (2) Primary dissimilarities among the women's studies programmes are directly related to: (a) the presence or absence of a full time coordinator, (b) the level of autonomy of the women's studies programme within the institution, and (c) the level of faculty and student involvement. In another study, Tyler, M.A.D. (1992), (University of Tulsa), from the response of women students of women's studies, it was found that the classroom structure imposed by the professor was adopted by the students as their structure for responding to the course. The professor was not a focus of the study but the data indicated the importance of her behaviour on the students' responses to the courses.

A SUMMATIVE ANALYSIS OF THE FIFTH SURVEY (1988-92)

An analysis of the researches on education of women reported in the Fifth Survey (1988-92) shows somes discernible shifts from the earlier surveys in the area of the 'meta knowledge', the concepts, the theoretical positions, the approaches and the methodology, and in the 'substantive knowledge' produced on the educational and the social situation of women and girls in India. This has to be viewed in the light of some significant events of the contemporaneous period, the most remarkable being:

 Intensification of the activities to improve the educational and the health situation of the girl child and her selfimage in the region. Following the First National Conference on the Girl Child in 1987, the resulting declaration of the SAARC Year of the Girl Child in 1990, and later, the SAARC Decade of the Girl Child (1991-2000), a National Plan of Action for the Girl Child (1991-2000)

- was prepared by India in keeping with this new commitment.
- 2. The National Perspective Plan on Women (1988) was drawn up for the mainstreaming of women's issues in policies and programmes, especially for women from rural areas and the underpriviledged sections. The key issue was giving women at least one third share in all decision-making bodies and levels, from Panchayats to the National Parliament, in bureaucracy, in selection committees, and in all policy-making organs (gradually being implemented).
- 3. Shramshakti, the Report of the National Commission for Self-employed Women and the Women in the Informal Sector (1988), brought out the fact of gross exploitation of 94% of the entire female workforce who are employed in the unorganised sector, and the fact that one third of all households from which they come are supported by women, and in another one-third, over 50% of the earnings are contributed by women. The recommendations included recognition of women's work as home makers and as economic producers by enlarging the definition of women workers in all subsequent data collection (carried out in the 1991 Census); and by setting up of an exclusive credit body for poor and self-employed women, and linking all training programmes to employment of these women, under implementation.
- 4. The National Literacy Mission (NLM) was launched as a societal and technology mission in 1988 for imparting functional literacy to 80 million illiterate adults in the 15-35 age group by 1995, the bulk of whom were women. The NLM adopted the Total Literacy Campaign (TLC) as a principal strategy for achieving universal literacy. The TLC is an area specific, time-bound, volunteer-based mass campaign, built through mass mobilisation and the

- support of the central and state governments, district administrations, non-governmental organisations, voluntary agencies and people from all walks of life. (MHRD 1993.)
- 5. The revision of the National Policy on Education, 1986, and its Programme of Action in 1992, re-emphasised: the interventionists' role of education in bringing about women's empowerment through revision of curricula and textbooks; gender sensitisation of all educational personnel across board; early removal of female illiteracy and universalisation of elementary education; vocational and technical education of girls, especially in nontraditional and emerging technologies, with women's studies playing a premier role in analysing, generating and supporting action. Education of rural girls and women was put high on the agenda, noticing that the rural-urban disparities were the sharpest in literacy rates and in the participation of girls at all levels of education, especially in the area of vocational and technical education. Continued shortage of women teachers in rural areas was seen as a problem yet to be negotiated (Studies have been Commissioned). (MHRD 1992.)
- 6. The launching of Mahila Samakhya in 1989 in three states, Uttar Pradesh, Karnataka and Gujarat, by the Department of Education of the Ministry of Human Resource Development of the Government of India was another strategy for women's development. women's Mahila Samakhya, a development empowerment project is state-sponsored, imbued with Indian Nordic Feminism presupposes that education can be a decisive intervention in the process towards women's equality. The project goal is to empower women to take

- control of their own lives and question the patriarchal mores and forms of social organisations that paralyse women and put into limbo their power (shakti). The project aims to create a demand for literacy but at the pace determined by the participating women themselves. Without the pressure for fulfilling quantitative targets, the resource persons have more time to catalyse an attitudinal change in women and their communities. (MHRD 1993.)
- 7. The 1991 Census of India gave some positive indications like higher growth rates in female literacy compared to male literacy and an improved work participation rate, and also the shocking revelation that the sex ratio, which had been declining till 1971 but taken an upturn in 1981, had again crashed to a new low of 927 females for 1,000 males in the population, leaving a major gap of 32 million females in a population of 844 million. The more alarming situation was noticed in the higher decline among the children of age-group 0-6 years, with 4 million fewer girls in this age-group. (Studies have been commissioned by the Department of Women and Child Development, MHRD, in 65 districts with the most adverse sex ratio for female children in the agegroup 0-6 years, (anticipating female infanticide, female foeticide and female neglect as the possible causes.)
- 8. Another event of significance is the Fifth All India Educational Survey of the NCERT (1988) which is based on school census and which puts out rural-urban data on educational indicators.
- Setting up of departments/cells, centres
 of Women's Studies by the NCERT, the
 SCERTs and the University Grants
 Commission in the universities and
 colleges, is noteworthy.

In the light of the above, it may be stated that the premier area of concern about the education of the girl child has drawn the repeated attention of researchers, leading to formulation of programmes of action. In the area of elementary education, the studies bring out very clearly the factors responsible for the continuance, discontinuance and nonenrolment of girls in schools. Predominantly, the household factors of poverty and genderdiscrimination and community related social constraints account for girls not enrolling or dropping out. The studies reconfirm the positive relationship between the economic standing of the household and female educational participation. The area of gender and achievement, however, has not been sufficiently explored and needs attention, both in research and in meliorative action in the form of compensatory education for the girls in the disadvantaged groups. The issues of health and nutrition of the girl child have not been attended to both in research and in action. A comprehensive study on the girl child in India was launched by the Department of Women and Child Development, MHRD, Government of India, through the Women's Studies Centres of the Universities in 1992. It may be pertinent to point out that in the present scheme of things girls in the age-group 6-18 are not covered under any government programme for health care and nutrition. A major chunk of girls in this age-group are out of school and are being addressed through NFE, TLC and distance education. There is very little research reported on these three areas in the Fifth Survey. Further, the problems addressed and issues raised in relation to adolescent girls are primarily concerning adjustment, sociopsychological problems and self-concept of school- and college-going girls. This leaves the out-of-school girls. Schemes of the Government of India like 'Balika Yojana' are meant for out of school adolescent girls and need to be probed into with respect to their implementation to give us a measure of their achievements and shortfalls.

A large number of special schemes and incentives have been in operation for decades, specially for girls and women belonging to the Scheduled Castes and Scheduled Tribes. While some studies in the Fifth Survey bring out the positive impact of education on the attitudes of these groups, they also point out that despite, women acquiring educational and technical competence, the women of these groups find it hard to get employment. This raises further questions regarding the possible gender discrimination in hiring practices even where quotas for these groups are assured. When we view macro indicators, the positive effects of protective discrimination policies and programmes for SC/ST are visible in improved literacy rates and enrolment, but the drop-out continues to be very heavy. However, a study of an Ashram schools in Madhya Pradesh, which points to many lacunae in the management of such schools also reports sufficient progress by girls who complete their schooling. Some of the outstanding experiments have not been studied, for instance the Kanya Parishar, (a residential school complex for SC/ST girls) in Kokshi (district Dhar) whose students compare favourably in self-confidence, neatness, articulation and achievement with any of the leading high-fee private schools of metropolitan cities.

Also, the impact of the large number of incentive schemes of the Government of India and the state governments has not been studied. A regular flow of evaluative studies to document the successes and failures of these schemes and other gender interventions is necessary. These studies are best carried out by autonomous evaluation organizations and academic institutions. Without adequate data and research, effective policy and planning interventions cannot be made. The major achievements and contraints of process oriented projects like Mahila Samakhya, and other EFA initiatives like the Lokjumbish Basic Education Project, Uttar Pradesh, the Bihar Education Project and, more recently, the District Education Programme (all claim girl

elites. However, a very recent study explored the role of Mahila Mandals in acting as nurseries for women elected-leaders in local self-government and found a lot of potential in these groups if conscious intervention is made.

Having looked at the substantive knowledge generated on education of girls and women up to the period of the Fifth Survey, it may be appropriate to look at the evolution in the area of meta knowledge. It may be recounted that educational research has been more empirical than many other social sciences ever since its inception. As is evident in the earlier sections, while one-third of the researches recorded up to 1965 were based on secondary data and sources, the rest of the studies were empirical. Further, in all five surveys, the researches reported are largely empirical studies. For the record, we may also state that a research investigation is a must as a part fulfilment of a Masters in Education programme, and most of these investigations, and doctoral projects in the faculties of education, have studied convenient samples/ populations available to them without cost i.e., school and college girls and women teachers in urban areas, where their own institutions are located. (As these researchers have little funding support, this limitation is not theirs, really speaking.)

Influenced largely by the discipline of psychology and psychometry, to be accurate, educational researches reflect the position of education as a discipline in the university system, removed from mainstream knowledge in other areas, its relative isolation and low prestige in the hierarchy of knowledge making the educational researchers relatively defensive and inward-looking in the image of their guides. To an extent, development of female education has been studied to bring out the temporal and spatial dimensions of women's education but these studies do not reflect in any real sense the methodological rigour of the social sciences. The bulk of the research on women's education covered by this project have been done in the departments of education;

sociologists have also displayed some interest but there is a rare thesis, if ever, from the departments of economics, political science, or history, among others.

The perspectives in most studies till the Fourth Survey are distinctly drawn from the framework of social change where education of women leads to modernisation of their attitudes and roles, making some difference in their position vis-a-vis areas like family decision-making, marriage and employment. The equality-between-the-sexes dimension does not emerge; at best, an emancipatory role for education (better than before) is visible. That education is necessary for women and has a positive effect on women, their family and productivity, is admitted.

The Fifth Survey make a departure when equality between the sexes enters centre-stage and education is seen as an agent of empowerment, increased self-awareness, better self-image, consciousness of rights, and possibilities opening up to women with education. Women with higher education, professional and technical, emerge as more self-confident and in better command of their situation than before even if they may not have achieved complete equality. To be more precise, several studies reported appear to be influenced by the concepts, techniques and methodologies thrown up by feminist scholars and activists, as reflected in the new discipline of women's studies. Women's studies, which were born out of women's activism, continue to respond to changing the situation of women in a positive direction, and, above all, making knowledge more holistic to include the female perspectives, their hopes and aspirations, and a world-view based on accommodation, harmony and peace. The centrality of education to the development of women as persons and women as active agents of national development is well established through national and cross-cultural researches in the area of fertility and mortality. Women's studies are the closest to the field based disciplines of sociology and social anthropology and employ the methods and techniques that break the hierarchies between the researcher and the researchee in the frame of participatory research, with major reliance on field-based interactions, individual and group interviews, focused group discussions, participant observation and case studies.

The fact noted by us earlier that educational research has by far been empirical and not 'armchair' research, is a happy augury in as much as that application of the theoretical constructs and methodologies of women's studies to the analysis of education of girls and women in all its ramifications does provide a framework for policy reform and action. In turn, women's studies get enriched by the finer aspects of the educational research tradition. It is however, important to acknowledge that while both the meta knowledge and substantive knowledge in the area of research on women's education appear to have advanced, there continues to be relative lack of conceptual clarity and Independent methododlogical rigour. researches done by experienced researchers show a distinctly mature handling whereas the researches emerging from the university departments appear to be exercises in exigency of fulfilling the requirements of a degree. Looking at the positive side, one may state that while university researches are an exercise in learning the methodology of research and only have shelf value, their long-term impact is realised through the work of mature researchers. Suffice it to say, that researches which influence the policies and programmes of women's education and development did emerge largely from women's studies' centres and scholars, from 'non-governmental organisations, and also from within the women's universities that are funded/ sponsored by the government, the UN and its and other international agencies, organisations. The tradition of research based educational planning is being born as reflected in the District Primary Education Programme which has a component of gender studies as inputs into gender-sensitive educational planning in 44 districts of eight states in the first phase.

THE GENDER GAP AND THE FUTURE CHALLENGES

The Gender Gap

Let us look briefly at where girls and women in India stand today as reflected in some macro indicators in order to may out the tasks ahead of us in the area of girls' education and women's equality and empowerment.

Population

The 1991 Census counted 407.1 million females against the male population of 439.23, million constituting just less than half (48.09%) of the total population of India (846.30 million). The female population grew at a slower pace of 23.37% during the decade 1981-91 against a decadal growth rate of 23.85% of the total population. (Census of India 1991.)

Sex Ratio

The sex ratio, which was 972 females per thousand males in 1901, has declined to 927 in 1991 The decline has been more or less steady over the decades, except for a marginal rise between 1941 and 1951, and a more recent one between 1971 and 1981. The decline has been sharper in the age-group 0-6 years-from 976 in 1961 to 945 in 1991. The adverse sex ratio for females is attributed mainly to higher mortality among females, as compared to males in all age-groups right from childhood through child-bearing ages. Limited access to the health infrastructure, contributing to high maternal mortality, and relative deprivation of the female child from nutrition, health and medical care have also been identified as some of the other contributory factors.

The adverse sex ratio for women needs to be seen against other indicators of falling mortality rates for both men and women, higher child survival rates and the improvement of life expectancy, which is more significant for women than for men. The improving health care in India should contribute to a more fabourable sex ratio for the country in the years to come. Among the factors that would remain to be resolved however, would be the **persistent bias in favour of the male child** (strong son preference) (Nayar, U. 1994).

Age at Marriage

The mean age at marriage for females, which was around 13 years at the beginning of the century, rose to 18.3 by 1981. The mean age at 'effective marriage' for females was 19.5 years in 1992. Acquiring higher education and greater employment by women have played a role in raising the age at marriage of girls (Sample Registration Bulletin, R.G. Office 1994).

Literacy

Female literacy is considered to be a more sensitive index of social development as compared to overall literacy rates. Female literacy is negatively related with fertility rates, population-growth rates, infant and child mortality rates, and shows a positive association with female age at marriage, life expectancy, participation in the modern sectors of the economy, and, above all, female enrolments. At the 1991 Census, female literacy was 39.29% as compared to 64.21% for males. Rural urban and inter-group disparities are sharp. The rural-urban divide is the sharpest among the females themselves. Urban females are twice as well off in literacy. Scheduled Castes and Scheduled Tribes females are at the bottom of the heap. (See table).

Rural female literacy is less than 10% in 27 districts; between 10%-20% in 107 districts and between 20%-30% in 99 districts. (Census of India 1991.)

	Urban Male	81.09%
	Urban Female	64.05%
	Rural Male	57.87%
	Rural Female	30.62%
	Schedule Castes Male	49.91%
	Schedule Castes Female	23.76%
	Schedule Tribes Male	40.65%
	Schedule Tribes Female	18.19%
_		

Employment

According to the Census data, the work-participation rate (i.e., the proportion of employed or total workers to the population) of females steadily rose from 14.22% in 1971 to 19.67% in 1981, and to 22.27% in 1991. The rise in the work-participation of rural females has been even steeper, from 15.92% in 1971 to 26.79% in 1991. The rise in the work-participation of urban females over the two decades is somewhat less impressive. During the 1991 Census, conscious efforts were made to count women workers more completely and remove their invisibility. This could be one of the reasons for the increase reflected in the work-participation rates between 1981-91.

It is significant to note that 90% of the total marginal workers are female. Women's employment in the organised sector was 4 million in 1993, constituting 14.6% of the total employment of 27.18 million; of these 62% were employed in the public sector and 38% in the private sector. About 56% of women employed in the organised sector are in community, social and personal service, and 6% each in transport, storage and communication, financing, insurance, real estate and banking services. Of the total employment of women, the organised sector provides for 4% women (Census of India 1991). The rate of unemployment for female workers is higher for urban females at 4.7% as compared to 0.3% for rural females. At the end of 1994, the number of women on the live register of employment exchanges was 80.90 lakh as against 78.50 lakh at the end of 1993 (Government of India Country Report, Fourth World Conference on Women 1995).

Universalisation of Primary Education (UPE)

The constitutional commitment (Article 45) to provide free and compulsory education to all children up to the age of fourteen within ten years of its promulgation, remains unfulfilled. This is largely on account of the inability of the system to enrol and retain girls. The enrolment ratio has gone up to 116.61% for boys, but is only 88.09% for girls. At the upper primary level girls' enrolment ratio is only 47.4% as compared to 74.19% for boys (1991-92 Departmental statistics). The rural urban divide is the sharpest among girls at the school stage, and higher education is a purely urban phenomenon. Few rural girls make it to secondary and higher education.

Girls form 43% of the 98 million children in Classes I-V: 39% of the 34 million children in Classes VI-VIII; 36% of the 15 million in Classes IX-X; and 35% of the 7 million students in Classes XI-XII. The gender gap increases with every successive higher level. The gender gap is closing in the urban areas but continues to be wide in the rural areas. Considering that 75% of our population still lives in rural areas, 73% of girls in primary school, only 58% of all girls enrolled in Classes VI-VIII, 49% girls in Classes IX-X, and only 29% of girls enrolled in Class XI-XII, are in rural areas. At the primary level, there are 31 million rural girls enrolled as compared to 11 million urban girls. There are 8 million rural and 6 million urban girls in Class VI-VIII; 2.7 million rural and 2.8 million urban girls in Classes IX-X, and only 0.72 million rural girls compared to 1.77 million urban girls in Classes XI-XII (Sixth Educational Survey 1995). Girls formed 34% in higher education in 1993-94 (Fact Sheet on Education of the Girl Child, NCERT 1995).

Access

For the 587,247 inhabited villages (1991 census), there are 511,849 primary schools, 127,863 upper primary schools, 48,262 secondary, and only 11,642 higher secondary schools located in rural areas, thus leaving 13% villages without primary schooling on an average, 78% villages without upper primary facilities, 92% villages without a secondary school, and 98% villages without a higher secondary school (Sixth Educational Survey). Girls are less mobile than the boys on account of the parental concern for their personal safety and thus utilise only the educational facilities available within the revenue village or in its sub units or habitations (an average of two habitations per village, which are often divided by physical and social distance, as observed between the upper-castes/classes inhabitants and the Scheduled Castes and Tribes). The well-off upper-castes form the core and the disadvantaged sections are at the periphery of a village; the school is often located in the core part of the village. The SC and ST parents at times are intimidated into not sending their children to school. In the foreseeable future the demand for formal schools at the upper primary level cannot be met, given our present resource base and policies. While unserved habitations and disadvantaged groups are being covered by (a poor second cousin!) non formal education centres at the primary level, distance education alone can build the necessary bridges for girls for post-primary and higher education. Distance education and alternative models of schooling need to be developed on the basis of need-based researches for rural girls and urban poverty groups.

Higher, Professional and Technical Education

There are 196 university-level institutions serving 4.3 million students out of whom 1.67 million (39%) are girls, their number having

gone up by more than four times since Independence. At the postgraduate level, 35.1% of students are female, the highest in Kerala (53.4%) and the lowest in Bihar (16.95%). In technical and professional education, their number has gone up from 6,000 in 1950-51 to 1.46 lakh in 1986-87. In engineering and emerging technology, their share has gone up from 0.3% in 1950-51 to 13.1% in 1993-94. There are 22 women's studies centres in the universities and 11 cells in women's colleges. (MHRD 1994-95.)

Decision-Making

The Tenth Lok Sabha had 39 women members, accounting for 7.2% of the total of 536 members. Women's participation has never been more than 7.7% (Seventh Lok Sabha). In the upper house in 1991, of the total number of 245 members, 38 or 15.5% were women. The situation in the legislative assemblies is even worse. At the national level, there is one woman senior minister and six state ministers in a cabinet of 74. There is one woman governor and one chief minister. Women ministers are often given welfare oriented portfolios like women and child development, education, culture, youth whereas finance, defence, home, foreign affairs, science and technology and other important portfolios are never allotted to women. In the Tenth Lok Sabha elections, the percentage of electors participating in the election was 49.5% for females and 61.6% for males. (As we go to the press, general elections for the Eleventh Lok Sabha have been announced. Only a handful of women have received tickets in every political party.)

There are only a few female judges in the Supreme Court and High Courts; some eminent women have no doubt occupied important official positions as secretaries to the central government as well as chief secretaries to state governments. Currently, the chairpersons of the Union Public Service Commission and the UGC are women. In selected civil services, the percentage of

women is 8.93% in the Indian Administrative Service, 0.01% in the Indian Police Service, and 11.28% in the Indian Foreign Service. It is estimated that only 1.2% of the executive cadre in the private sector are women, and that, too, in a few segments like advertising and hotels (Country Report, Fourth World Conference on Women 1995.)

The 73rd and the 74th Constitutional Amendments have, however, thrown up 900,000 women into active politics on account of the 30% quota in panchayats, block parishads and zila parishads as well as in municipal corporations. This historic event has yet to be assimilated and studied.

The Challenge

Researches and experience have proved beyond doubt that education is necessary for the development of individuals and nations; that education is the basic right of all human beings, men, women and girls, boys; that education has brought about attitudinal changes towards women, girls and their development; that educated girls and women themselves become more positively oriented to accepting and, at times, leading change. Theoretically, the Indian laws, policies and programmes are geared to an egalitarian social order where women enjoy not only equality but also affirmative action on the part of the state also. On the ground are large number of programmes and schemes aiming at women's development, women's equality and women's empowerment, with an unqualified focus on the education and the health of the girl child. While these concrete programmes need to be studied there is still the major challenge of bringing about greater understanding and sensitivity to gender issues which is not a substitute for equality of numbers in all walks of life but involves a major qualitative change in the social roles and social relations between men and women in our society. Educational content and processes need to be studied, not only in textbooks but also in classroom practices, and teacher behaviour; the media, both as a support and a hurdle, need to be understood.

India also needs to gear up to the numerous demands of a global market and make strategic international manoeuvres to establish its leadership and identity as a secular democratic nation. The economic reforms are on and there are requirements of structural adjustment programmes which are likely to dilute the social justice and welfare orientation of the Indain state. This would have implications for education and society at several levels. There is need to make every link of the chain equally strong to be effective, i.e., not only distributive justice but upgradation of education and skills and training of all to ensure that India does not miss another chance of joining the scientific and technological revolution, but with a human face. The moment we talk about a human face. every child, a girl or a boy, every human being regardless of caste, creed or religion and sex needs, to be integrated into the national task of building a human resource that can meet all the challenges of the twenty-first century. Gender and economic reforms are a major area for study. In more than one sense, the Ninth Five Year Plan is the proverbial last leap into the next century. The education of girls and women has to be viewed in this context. The education of Muslim girls and women needs urgent attention as this section is absent even in statistics and is perhaps more backward than their SC/ST/ OBC counterparts.

Research has now to gear itself to supporting action through study, analysis, evaluation, documentation and dissemination. For carrying out the major task of building gender-sensitivity, a deeper study of the curriculum, its development, and its transaction in the actual classroom/learning situations would be required for preparing research based curricular and training materials. (An inter-country innovative pilot project sponsored by UNESCO does present a model for this task as operationalised by the

Department of Women's Studies (DWS), NCERT (1992). Seven, six week training programmes on the methodology of women's education and development have been organised by the NCERT, utilising research fundings in the area and a participatory training approach.)

There exists a mammoth programme for early childhood care and education (ECCE) in India, covering nearly 18 million children, forming less than half of the target population (below the poverty line). Three major observations may be made: one, gender statistics on the integrated child development services (ICDS) are not available; two, the education component of ICDS continues to be weak, although the nutrition and health component appears to have benefited children from the marginalised sections of population, the impact being visible in reduced infant and child mortality and near universalisation of immunisation; three, the component of gender sensitivity in the training of ICDS workers is absent. The research and development in this area can take on the form of needs-assessment for training, preparation of training materials, and designing gender interventions in the action-research mode.

Conspicious by its absence is the element of health and nutrition of the children in the elementary and secondary age-group, espeically during adolescence. School outcomes are not purely a function of academic and pedagogic inputs by the school but are in equal part influenced by the health and nutritional status of the children and adolescents. The low levels of nutritional intakes and attendant problems of depleted health status in conjunction with poor levels of health care in low income countries are factors that need careful study. In gender discriminatory cultures with a strong "sonpreference" behaviour, the intra-household distribution of labour and resources is loaded against the girls, who work more and get a lesser share of food, health care, leisure and play (Nayar, U. 1994b). For instance, 'iron status' was predictive of school achievement

among adolescent girls in a Jamaican study; that is, the lower the haemoglobin value, the lower the school attendance. In countries as far apart as Benin and Nepal, poor nutritional status was found related to the school attendance of adolescents. One possible explanation was the long distances that these adolescents had to walk in addition to completing domestic chores. This greater energy expenditure was not compensated for by greater energy intake, probably because there were no meals at school. The Mexico study showed that improved nutritional food supplementation in early childhood was related to higher cognitive development, a precursor of school achievement (Kurz et al. 1994). Gender differences were also notable, indicating unequal division of food and health care, except in cultures like the Philipines with a thoroughly pro girl child stance of the family a logical result of the tradition where the parents in their old age are looked after by the daughters and not by the sons. The Indian situation in the study reflects the health and nutrition status of the girl from an urban slum. Studies of the rural adolescent girls in school and outside are needed for planning gendersensitive health and nutrition interventions in the educational programmes for the development of high quality human resource. This set of inter-country studies shows a definite link between educational achievement and health and nutritional status of children (Ibid.).

The considerable work done in the area of UEE suggests a continuous need for research based educational planning at district, block, and cluster level. An important area requiring attention is the formal transfer of elementary and secondary education to the panchayats and local bodies (with one third women members and chairpersons). Gendersensitisation of panchayat members and councillors is not only urgent but needs research-based interventions. In rural areas, there is continued shortage of women teachers. The Sixth All India Educational Survey NCERT,

1995 found that women formed 23% of primary teachers in rural areas as compared to 60% in urban areas; at the upper primary, the corresponding figures are 25% and 59%.

Also insufficiently studied is the phenomenon of gender and achievement, and there is no study as yet on classroom interaction and teacher behaviour *vis-a-vis* girls and boys.

In view of the promises made and the potential and actual participation of women in extra domestic spheres, the education and training of girls will have to be geared more and more to development of technical and technological skills, and, above all, the abilities of leadership, decision-making, entrepreneurship and handling of public roles. The studies on second- and third-level vocational, technical and professional education are not sufficient to provide guidance for formulation of policies and programmes. These will have to be, both areaspecific and generic. Many more studies are required for mapping out the interaction between education of women, the media, women's movement and political participation, for the agenda now is not only emanicipation on moral grounds but a clear demand for freedom from poverty and want on the part of women, and, a frank avowal of the need for participating in the economic and political decisions about women, about, men, about nations, about global questions.

The researchers have a host of national and international policy documents to look to for research agenda (besides their own felt needs), the most recent being the call of the world's women from Beijing in the form of a Platform of Action, which gives a clear mandate for the action required for women's progress. It recommends twelve critical areas of concern which are considered the main obstacles to women's advancement. There has emerged a powerful recognition of the crucial role of women in sustainable development and in protecting the environment; the recognition that the human rights of women are an

inalienable, integral and indivisible part of universal human rights; that violence against women is intolerable, and is a violation of these rights; that health, maternal care, reproductive choices and above all access to education and information are absolutely essential to the exercise by women of this fundamental right.

Considering that education is by definition conservative, slow to change and 'status quoist', transforming it into a radical change agent as expected in the National Policy on Education, 1986, is a difficult task. The application of the concepts and constructs of women's studies born in the tradition of action and activism to the educational process has to be carefully planned. Militancy is not an educational mode. Organised peaceful protest based on deep understanding and analysis of issues of social justice, human rights and gender equality, is perhaps needed nonetheless. Educational research has to respond at several levels—the required changes in the curriculum and its transaction, the need for radical change in the gender perceptions of teachers and teacher educators, and linkages with and action required by other socialising agents, the parents, the community, the media.

The education of girls and women is considered as the key to all development but it does not receive resource allocations commensurate with its importance. Studies on financing of girls' education are needed for better resource allocations so that this area graduates from being a policy rhetoric to a planned-implementation reality. programmes claiming gender as a focus need careful study from this angle. A study of the basic issues in the education of women and girls in the Asia and Pacific Region commissioned by the UNESCO (Nayar 1989c) brings out clearly that female literacy is dependent on the social policies and ideological persuasions regarding the roles and status of women in a particular culture. Female literacy has been achieved in countries with extremely low levels of income but with strong distributive social policies on health, education, training and employment. That 'education for all' cannot be achieved without 'health for all' and 'work for all' needs to be internalised. As the poverty of nations affects women and girls the most in genderdiscriminatory societies, the national and international commitment has to address the question of better redistribution of the global and the national GDP. Women's education is a function of women's equality, which will not come about by mere provision of rights but by the ability of women to use those rights. The study makes a strong appeal to the national leadership and the international organisations to adress themselves to the gender question more squarely, both in policy and implementation, as studies in the economics of education tell us that both private and social returns to women's education are greater than those for men at virtually every level and 'at most' equal to those for men (Psacharopoulos, G. 1985).

The women's studies scholars and educational researchers have to rise to the occasion through mutual interaction, feeding into the growth of both the disciplines of education and women's studies as well as all social sciences and pushing the advancement of women/humans further.

REFERENCES

Anandalakshmy, S. 1994. The Girl Child and its Family: An Action Research Study.

Department of Women and Child, Ministry of Human Resource Development, New Delhi

Banda, Sarojana, 1992. A study of the status of women as depicted in the textbooks offered at school level in Andhra Pradesh. Ph.D., Edu. Osmania Univ.

Beason, Janet Harris. 1992. Identification of career barriers faced and professional strategies used by female secondary school principals. Ed. D. Arizona State Univ.

- Bhattacharya, Smritikana. 1992. An investigation into the problems of scholastic backwardness of adolescent girl students in and around Calcutta. Ph.D., Edu. Univ. of Calcutta.
- Bhattacharya, Ira. 1991. A comparative study of the values of some secondary schoolgirls differing in age and in socio-economic and cultural status. Ph.D., Edu. Kalyani Univ.
- Bisaria, S. 1991. Need-based vocationalization of education for girls.
 Independent study. New Delhi: National Council of Educational Research and Training.
- Busamma, K. 1995. Construction and Standarization of a Diagnostic Test in Exponents and Powers for Class VII students of Hyderabad. Ph.D., Edu. Osmania Univ.
- Census of India, 1991. Final Population Totals: Brief Analysis of Primary Census Abstract. Government of India.
- Chanana, Ahmad Karuna. 1988. Social context and women's higher education: A study of women undergraduates of Delhi. Independent Study. Jawaharlal Nehru Univ.
- Chanana, Ahmad Karuna. 1989. Women's work, education and family strategies in the context of social change and mobility. Independent study. Jawaharlal Nehru Univ.
- Chaudhry, Pritima K. 1988. Changing values among young women. Ph.D., Soc. A. N. Sinha Institute of Social Studies, Patna.
- Dahlke, Lynda Matschulat. 1992. Self efficacy, career choice, and life satisfaction in college educated women. Ph.D. Marquette Univ.
- Dash, N. 1991. A study of the problems of

- enrolling women in adult education centres in Jajpur sub-division under N.A.E.P. M.Phil., Edu. Ravenshaw College, Cuttack.
- Devi, T. Vinoda, 1991. Education and employment status of women and their attitudes and practices in family welfare in Andhra Pradesh. Ph.D., Edu. Osmania Univ.
- Dua, R. 1991. A study of adjustment, familial role expectations and modernization of working and non-working women. Ph.D., Edu. Rohilkhand Univ.
- Duggal, Janak. 1989. **Haryana women on the move.** Independent study. New Delhi:
 National Council of Educational Research
 and Training.
- Duggal, Janak. 1992. Access of Scheduled Castes girls to elementary education in rural Haryana: A micro study. Ph.D., Edu. Jamia Millia Islamia.
- Dutta, Baby. 1990. Contribution of Ishwar Chandra Vidyasagar to the development of education of women in Bengal. Ph.D., Edu. Univ. of Calcutta.
- Dutta, Indranee. 1990. Self-concept and personality adjustment of girls through pubescence. Ph.D., Psy. Guwahati Univ.
- Eusebius, Poonam. 1989. Growth of higher education among women in Uttar Pradesh, Ph.D., Hist. Allahabad Univ.
- Evans, Mary Ann. 1992. Changing attitudes toward science and women in science:

 Assessing the impact of a role model intervention on ninth grade students.

 Ph.D. Iowa State Univ.
- Fatima, Nusrat Jehan. 1989. Education, social mobility and social change among women in Bangalore City. Ph.D., Edu. Univ. of Mysore.

- Ganesan, P. 1989. Development of women's higher education since independence in Pasumpon Theval Thirumagan District. M.Phil., Edu. Alagappa Univ.
- Garg, Alka. 1988. A study of personality needs, self-concept and risk-taking with a special reference to socioeconomic status among single sex college girls. Ph.D., Edu. Agra Univ.
- Gokhale, Leena. 1991. Status of women in migrant industrial workers' families and their attitudes to education. Ph.D., Edu. Indian Institute of Education, Pune.
- Gokhale, Padmini, P. 1991. A study of cultural and recreational activities of women of Vidharba during post-independence period. Ph.D., Edu. Nagpur Univ.
- Government of India. 1959. Report of the National Committee on Women's Education. New Delhi: Ministry of Education.
- Government of India. 1974. Report of the National Committee on Status of Women in India, Towards Equality.

 New Delhi: Ministry of Education.
- Government of India. 1988a. Shramshakti —
 The Report of the National
 Commission for Self Employed Women
 and the Women in the Informal
 Sector. New Delhi: Ministry of Human
 Resource Development.
- Government of India. 1988b. The National Perspective Plan on Women (1988-2000). New Delhi: Ministry of Human Resource Development.
- Government of India. 1991a. National Plan of Action for SAARC Decade of the Girl Child A.D. 1991-2000. New Delhi: Ministry of Human Resource Development.
- Government of India. 1992. The National Policy on Education, 1986 and the Programme of Action (Revised in

- 1992). New Delhi: Ministry of Human Resource Development.
- Government of India. 1993. Education for All—The Indian Scene—Widening Horizons. New Delhi: Ministry of Human Resource Development.
- Government of India. 1993-94. **Annual Report. Part I.** New Delhi: Ministry of Human Resource Development.
- Government of India. 1994. Sample Registration Bulletin. Vol.XXVIII, No.1, Registrar General, India, New Delhi: Ministry of Home Affairs.
- Government of India. 1995 Country Paper for Fourth World Conference on Women.

 Beijing. New Delhi: Ministry of Human Resource Development.
- Gupta Anuradha. 1989. The effect of family attachment on personal values creativity and educational achievement of girls of small and big families. Ph. D., Edu. Agra Univ.
 - Herraiz, Laura Benito. 1990. Women university teachers: A social and psychological comparison between India and Spain. Ph.D., Edu. Jawaharlal Nehru Univ.
- Hota, Sujata. 1990. Working women's perception of their self and environment in relation to job and life satisfaction. Ph.D., Edu. Kurukshetra Univ.
- Jain, Ambika. 1991. Analysis and evaluation of the animators' training camps for the education and empowerment of rural women conducted by IIE, 1988-89. Project Report. Pune: Indian Institute of Education.
- Jain, Ganeshlal. 1990. A comparative study of values, level of aspiration and personality traits of rural and urban adolescent girls of Rajasthan. Ph.D., Edu. Mohanlal Sukhadia Univ.

- Jain, K. 1954. Personality Studies of Adolescent Girls. Ph.D., Edu. Bombay Univ.
- Jain, V.K. and O.P. Arora. 1995. Effect of school level variables on achievement gaps between boys and girls. Indian Educational Review, Special DPEP number, New Delhi: National Council of Educational Research and Training,
- Jaiswal, Rajendra Prasad. 1989. Professional status of Women: A comparative study of women and men scientists and engineers. Ph.D., Edu. Jawaharlal Nehru Univ.
- Jangira, N.K. and Anupam Ahuja. 1995.

 Learning Achievement of Children at
 Primary Level: A Baseline Assessment
 Study in four districts of Haryana, New
 Delhi: National Council of Educational
 Research and Training.
- Joshi, Rambha. 1991. Study of the rearing up practices of schoolgoing adolescent girls in relation to their parental education and some socio-familial factors. Ph.D., Edu. Kumaun Univ.
- Kabra, Lalita. 1991. A comparative study of Scheduled Castes and non Scheduled Castes female students: Their educational backwardness and goals with reference to personality patterns and environmental adjustment. Ph.D., Edu. Mohanlal Sukhadia Univ.
- Kagade, Shobha, 1988. A study of urban adult women's attitudes and their continuing education needs with respect to improving their knowledge of English language. M.Phil., Edu. Tilak College of Education, Pune.
- Kakati, Kunja Kusum. 1990. Socio-economic status of educated working women of Kamrup District: A study of its impact on society. Ph.D., Edu. Gauhati Univ.

- Kantamma, K. 1990. Status of women in relation to education, employment and marriage. M.Phil. Adult Edu. Sri Venkateswara Univ.
- Kashikar, M. Rohini. 1990. A study of Mahila Mandals in Khed Taluka of Pune District with special reference to their training needs for making mandals more active. Ph.D., Edu. Indian Institute of Education, Pune.
- Kaul, Anuradha. 1990. Educational, economic and social impact of voluntary training agencies offering income generating programmes on the socio-economic status of women of Baroda City. Ph.D., Sci. Edu. The Maharaja Sayaji Rao Univ. of Baroda.
- Khatoon, Parveen. 1990. Self-concept and alienation in college girls in relation to education and religion. Ph.D., Psy. Kumaun Univ.
- Kirtikar, Padma. 1952. Education of Women in India During the British Period (1800-1947). Ph.D. Edu. Bombay Univ.
- Krewer, Barbara Katherine. 1992. Women and leadership: The effect of gender role orientation, socio-economic status, and parental influence on women's aspirations to leader roles. Ed.D. Western Michigan Univ.
- Kumar, Ashok. 1991. Contribution and involvement of Mahila Mandals women groups in strengthening the ICDS services: A research study report. Independent study. Lucknow: National Institute of Public Corporation and Child Development,.
- Kurz, Kathleen. M. 1994. Investing in the Future: Six Principles for Promoting the Nutritional Status of Adolescent Girls in Developing Countries. International Centre for Research on Women, Washington, DC.

- Kurz, Kathleen, M. 1995. Health and Nutrition of Adolescents in Developing Countries. New York: International Centre for Research Women (ICRW).
- Lanjewar, A.S. 1989. A Study of the problem of unemployment and the skill of organisation among the educated women in Nagpur City. M.Phil., Edu. Nagpur Univ.
- Liankhuma, J. 1989. A study of the development of women's education in Mizoram. Ph.D., Edu. North Eastern Hill Univ.
- Louis, Josephine Mary. 1989. An enquiry into the background and status of women executives. Independent study. Mother Theresa Women's Univ.
- Madasamy, M. 1992. Developing positive self-concept among girl students M.Phil., Edu. Alagappa Univ.
- Mahesh, R. 1991. Political participation among rural women in Sakkottai Block. M.Phil., Edu. Alagappa Univ.
- Mathur, Neeta. 1990. A psychological study of infertile married women. Ph.D. Soc. Sc., Mohanlal Sukhadia Univ.
- Meera, R. 1992. Analysis of population education in secondary school curriculum. M.Phil., Edu. Mother Theresa Women's Univ.
- Michael, M. Raj. 1991. A relational study of sexist bias in the primary school text-books and self-concept of the primary school girls. M.Phil., Edu. Alagappa Univ.
- Ministry of Education. 1959. Report of the National Committee on women's education. Government of India.
- Ministry of Human Resource Development. 1992. The National Policy on

- Education, 1986 and the Programme of Action (Revised in 1992). Government of India.
- Ministry of Human Resource Development, 1993. **Mahila Samakhya**, Department of Education, Government of India.
- Ministry of Human Resource Development, 1994-95. **Annual Report**. Department of Education, Government of India.
- Mutalik, Swati. 1991. Education and social awareness among women: A case study. M. Phil., Edu. Indian Institute of Education, Pune.
- Nagar, Rashmi. 1991. A study of vocational aspirations of educated girls in Gorakhpur Division and facilities available to them. Ph.D., Edu. Univ. of Gorakhpur.
- Naik, Chitra. 1949. Education of women in the province of Bombay. Ph.D. Edu. Bombay Univ.
- Navare, Savita. 1991. The role of education in socialization of Scheduled Castes women teachers. Ph.D., Edu. Indian Institute of Education, Pune.
- Nayar, Usha. 1988. Women Teachers in South Asia. Delhi: Chanakya Publications.
- Nayar, Usha. 1989a. Hamari Betiyan— Rajasthan: New Delhi: UNICEF-NCERT.
- Nayar, Usha. 1989b. Education of the child in India with special focus on girls: A situational analysis. New Delhi: National Council of Educational Research and Training.
- Nayar, Usha. 1989c. Women's Education in Asia and the Pacific: Some Basic Issues in Education for All. Bulletin of the UNESCO Principal Regional Office for Asia and Pacific. Number 30, December 1989.

- Nayar, Usha. 1991a. Measures to increase participation of girls and women in vocational, technical and professional education in India. New Delhi: HRD Group, Commonwealth Secretariat, NCERT.
- Nayar, Usha. 1991b. Universal Primary Education of Rural Girls in India. Independent Study, New Delhi: National Council of Educational Research and Training.
- Nayar, Usha. 1994a. "The Girl Child In India: Survival, Protection Development." UNICEF, Delhi Office. Country Paper Presented in, Inter-Regional Consultation on The Girl Child, Anand, Gujarat.
- Nayar, Usha. 1994b. Traditional Practices
 Affecting the Health of Women and
 Children—Second United Nations
 Regional Seminar. UN Conference of
 Human Rights, July, 1994.
- Nayar, Usha. 1995a. From Girl Child to Person. New Delhi: UNESCO, Delhi Office.
- Nayar, Usha. 1995b. Gender Issues in Education. Indian Education Review Special No. 1995 on District Primary Education Programme.
- Nayar, Usha, 1996. Planning for universalisation of primary education of girls and women's empowerment:
 Gender studies in DPEP in NCERT. In,
 School effectiveness and learning achievement at primary stage-international perspective, New Delhi:
 National Council of Educational Research and Training.
- Nayar Usha, et.al. 1992. Study of drop-out and non-enrolment among girls in rural Haryana. Independent Study. New Delhi: National Council of Educational Research and Training.

- Nayar, Usha,; K.C. Nautiyal,; S.Joglekar,; Manju Jain,; Nagendra Singh and S. Bhattacharya. 1992. A study of factors for continuance and discontinuance of girls in elementary schooling. New Delhi: National Council of Educational Research and Training.
- NCERT. 1995. Education of the Girl Child: A Fact Sheet. New Delhi: Department of Women's studies.
- Norman, J.M.D. 1992. Hill top and its women teachers: A study of the factors which influence and shape the careers of women teachers. Ph.D., Univ. of East Anglia (U.K.).
- Pabani, Zahira. 1992. The status and role of women teachers of the University of Bombay. Ph.D. Edu. Univ. of Bombay.
- Padmavati, A.S. 1992. India's population policies vis-a-vis women's reproductive rights. M.Phil., Edu. Mother Theresa Women's Univ.
- Pandit, R.V. 1989. Girl drop-outs in school education—Causes and remedial measures. Independent Study. Pune: Maharashtra State Council of Educational Research and Training.
- Pant, D. and Sen, A. 1992. Learned helplessness among Indian Women: An empirical study. Indian Educational Review, Vol. 27, No. 1, 12-22.
- Parsons, Sandra. 1992. A comparative study of selected women's studies programmes in the upper mid-West. Ph.D. Women's Studies. The Univ. of North Dakota.
- Patel, Sheetal B. 1992. Education of the girl child. The Progress of Education, Vol.(LXVI) No.6, January.
- Patil, Kakde. P.S. 1988. An analytical study of the present role of educated women as against the role expectations by the

- protoganists of women's education in the modern period, Ph.D. Edu. Nagpur Univ.
- Psacharopoulos, George. 1985. Returns to Education: A further international update and implications, Journal of Human Resources, Vol. 20(4), 584-604.
- gender 1995. A study of discrimination among the school students in the field of education. Journal of Community Guidance and Research, Vol.12, No.2.
- Rajvanshi, Jyotsna. 1991 Education, status mobility and social change: A comparative sociological study of educated middle class working and non working women. Ph.D. Socio. Univ. of Rajasthan.
- Rai, Shashi Prabha. 1993. A study of girls in vocational courses at +2 stage and followup of those who have completed these courses. M.Ed. Jamia Millia Islamia
- Ratnaveni, S. 1991. A study of growth and constraints in higher education of women in Andhra Pradesh. Ph.D. . Edu. Osmania Univ.
- Ray, Jagruti. 1989. An intensive study into the problems which lead girls to dropout from high school Classes V-X in Jagatsinghpur block of Cuttack District, Orissa 1980-86. M.Phil, Edu. Indian Institute of Education, Pune.
- Rose, Sharon A. 1992. A comparison of a women's college and a co-educational attitudes college on towards mathematics and mathematics enrolment of undergraduate women. Ed.D. Northern Arizona Univ.
- Sanchez, T. Gloria C. 1992. The 21st Century academician: Bey and the glass celing. Ph.D. Edu. The Union Institute.

- Sardamma, M.A. 1992. An enquiry into the learning needs of illiterate women in Kerala with a view to evolve a suitable curriculum. Ph.D., Edu. Univ. of Kerala.
- Saxena, Rachna. 1991. Educational material for women: A comparative study. M. Phil., Edu. Univ. of Delhi.
- Pushpanjali, Samantaray and Sujata Patnaik. Sharma, Archana. 1989. Personal and social factors affecting the success and retention of girls in science. Ph.D., Edu. Agra Univ.
 - Sharma, Harsh. 1992. Employment pattern of educated women: Review of literature and data. New Delhi: IAMR,
 - Shukla, Archana. 1995. Attitude towards the role and the status of women in Indiasome demographic correlates. Journal of Community Guidance and Research. Vol. 12, No. 2.
 - Siddigui, S. Sultana Hazarika. 1989. Impact of rural functional literacy programme on rural women of Jorhat District of Assam. Maharaja Sayaji Rao Univ. Baroda.
 - Singh, Hansvir. 1992. Changes in sex ratio in India with special reference to urban areas: 1901-91. M.Phil. Jawaharlal Nehru Univ.
 - Singh, Satvir and R.R. Saxena. 1995. Achievement Difference and School Effects, Indian Education Review, Special number on (District Primary Education Programme).
 - Singh, Sudha Bala. 1989. A comparative study of personality of working and non working ladies with special reference to family adjustment and their impact on the education of their children. Ph.D., Psy. Agra Univ.
 - Singh, Virendra. 1988. An investigation into the extent and causes of drop-out among girl students in the rural

- schools of Chandigarh. Independent study. New Delhi: National Institute of Educational Planning and Administration.
- Singhai, S. 1986. Social interest and attitude of girl students of colleges of Indore City. Ph.D., Soc. Devi Ahilya Vishwavidyalaya.
- Sinha, Shantha. 1991. Problems of the girl child—some issues—a report. Progressive Educational Herald, 23-236.
- SNDT Women's University. 1968. Education of Women in India (1850-1967) Golden Jubilee Commemoration Volume, Part IV. Bombay.
- Sommers, Pamela Coffey. 1992. Achievement motivation: A factor influencing career related programmes of study among female graduate students in private Connecticut universities. Ed.D. Univ. of Bridgeport.
- Sobhavathamma, I. 1989. A study of educated working women in Chittoor District. Ph.D., Soc. Sri Venkateswara Univ.
- Srivastava, Kavita. 1991. Relationship between job satisfaction and some personal traits of professional women. Indian Educational Review, Vol.26(3), 95-100.
- Sundaram, Nalini. 1991. The impact of education on women entrepreneurs in Pune. M.Phil, Edu. Indian Institute of Education, Pune.
- Swami, Sushma. 1990. A critical study of women's education in Vidarbha from 1947 to 1987. Ph.D., Women Edu. Nagpur Univ.
- Thomas, P.E. and Pichandy, C. 1992. Women's magazines and education. Indian Educational Review, Vol.27(2), 90-99

- Thomas, P. 1964. *Indian Women Through Ages.* Bombay: Asia Publishing House.
- Tripathi, R.P. 1988. Progress of labour absorption for educated persons and women by broad educational categories. IAMR, New Delhi.
- Trivedi, Neela. 1992. An analysis of non formal education needs of rural women: A one village case study in India. Ph.D. Edu. Iowa State Univ.
- Tsai, Shugliag. 1992. Teacher stress processes: Relationships among social support, perceived stress, cognitive appraisal, and coping implementation in Taiwanese female secondary school-teachers. Ph.D. Edu. The Univ. of Texas at Austin.
- Tyler, Mary Anone Deibert. 1992. Women's voices: Responses of women students to a women's studies course. Ph.D., Women Studies. The Univ. of Tulsa.
- United Nations. 1995. From Beijing, a Platform for Action, and a clear mandate for women's progress, Deptt. of Public Information, U.N., New York.
- Upmanyu, Kalpana. 1991. A study of marital adjustment of working and non working women in relation to certain socio-psychological variables. Ph.D. Psy. Mohanlal Sukhadia Univ.
- Van Der Ploeg, Diana Joyce.1992. A comparative study of men and women administrators as mentors in higher education. Ph.D., Edu. Colarado State Univ.
- Vanmathi, M. 1992. Role expectations and role performance of women. M. Phil. Psy. Madurai Kamaraj Univ.

- Vasuki, N. 1990. Attitudes of women towards women's education. M.Phil. Edu. Avinashilingam Institute for Home Science and Higher Education for Women.
- Visvasam, D.J. 1963. Programme of Physical Education in Girls Schools in India.

Ph.D. Edu. Madras Univ.

Wasnik, S.G. 1989, A survey of educational progress of women belonging to the 'Mahar' community in Nagpur City. M.Phil, Women's Edu. Nagpur Univ.