CHAPTER II

REVIEW OF RELATED STUDIES

Open and distance education system has emerged as an alternative as well as complementary channel of education and training in India. It is being adopted throughout the world as a cost-effective and flexible answer to widening access to education for all. In India, the growth of open and distance education, both quantitatively and qualitatively, has been dramatic and phenomenal since the 1980s when single mode open universities were established in the country. Today, open and distance education has already established its credibility and recognition. Over the last three decades, researches on open and distance education in India increased consistently. Since the late seventies, some research studies have been undertaken but that too was very few and inconsistent. In fact, studies on distance education have been weak and very few in number as compared with other areas of educational research. Research in distance education gained momentum when NCERT in a collection of research studies in education opened a separate chapter of ‘Open and Distance Education’ in the Fifth Survey of Educational Research (1988-92). Earlier, studies on distance education were clubbed under general or broad categories such as Educational Technology, Teacher Education, Non-formal Education or Higher Education. With the rapid expansion of distance education in the country, researches in open and distance education proliferated. The main issues of research studies were enrolment trends, learner's characteristics, policy
planning and management, problems faced by distance learners, role of multi-
media, economics of open and distance education etc.

An attempt has been made in this chapter to present a brief overview of the
main trends and major issues of research in open and distance education in India.
To make a systematic presentation, this chapter has been organised under the
following heads:

(1) A macro perspective on quantum of researches on open and distance
education in India;
(2) Reviewed research studies relevant for the present study;
(3) Relevance of the present study in relation to the studies reviewed.

2.1.0 A MACRO PERSPECTIVE ON QUANTUM OF RESEARCH STUDIES ON
OPEN AND DISTANCE EDUCATION IN INDIA

A broad overview of the quantum of researches on open and distance
education in India is given in table 2.1.1. These research studies include Ph.D
researches and other researches undertaken by individual researchers and
institutions. The sources of the information were the Fifth and Sixth Surveys of
Educational Research published by NCERT, New Delhi and Indian Journal of Open
Learning published by IGNOU, New Delhi.
Table 2.1.1
Quantum of Researches on Open and Distance Education in India

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Source</th>
<th>Period covered</th>
<th>Total No. of Studies conducted</th>
<th>Area-wise distribution of researches relevant for the present study</th>
</tr>
</thead>
</table>

Table 2.1.1 presents the quantum of researches conducted in open and distance education in India. It also makes an attempt to quantify the number of study conducted in the areas relevant for the present study. The Fifth Survey was the first
ever to report researches and studies on open and distance education under one umbrella. The Survey traces the trend of researches from 1971-92. These studies examined: (i) Enrolment trends and Courses; (ii) Growth, Development and Social Relevance of the Distance Education System; (iii) Needs and Characteristics of Distance Learners; (iv) Development and Production of Course Materials; (v) Instructional Strategies and Methodology; (vi) Economics of Distance Education; and (vii) Evaluative Studies. Out of the 47 studies, 35 studies were relevant for the present study. The Sixth Survey reported 12 research studies in which 7 studies were related with the areas chosen for the present study. The number of research papers published increased tremendously with the publication of Indian Journal of Open Learning by IGNOU since 1992. Though the number of researches on open and distance education in India witnessed rapid increase over the last thirty years, it is relatively little researched compared to other areas of educational problems

2.2.0 RESEARCH STUDIES REVIEWED

For a systematic and logical presentation, the research studies reviewed have been divided into four parts in accordance with the objectives of the present study. These are: (i) Growth and development of distance education (ii) Characteristics and profiles of the distant learners and related issues like utilisation of academic facilities by the learners and follow up study of successful learners; (iii) Infrastructure and related inputs like the working of study centres, student support services, programme of studies and financial inputs and (iv) Problems of open and distance
education - problems faced by the learners as well as the co-ordinators. The area wise distribution of the studies reviewed has been presented in table 2.2.2.

Table 2.2.1
Area-wise and Decade-wise Distribution of Research studies Reviewed

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Dimensions</th>
<th>Period</th>
<th>Number of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Growth and Development</td>
<td>1970s</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1980s</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1990s</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2000s</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Characteristics and Profiles of Learners</td>
<td>1970s</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1980s</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1990s</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2000s</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>Infrastructure and related inputs</td>
<td>1970s</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1980s</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1990s</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2000s</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Problems of Open and Distance Education</td>
<td>1970s</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1980s</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1990s</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2000s</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>79</strong></td>
</tr>
</tbody>
</table>

2.2.1 Studies Relating to Growth and Development

Biswal (1979) studied the growth of correspondence education in India and found that enrolment rate was higher in arts, commerce and management in comparison to other disciplines; admission procedures were found to be liberal in nature. The objectives of correspondence instruction imparted through different universities remained more or less similar all over the country. The academic staff
pattern also remained more or less similar in all universities, whereas differences were marked with regard to administrative pattern.

Srivastava (1995) examined the expansion of higher education in Karnataka state by comparing the effectiveness of distance education and traditional education. He found that distance education course was relevant to the individual needs of the learners and was growing faster than the conventional education. The growth of enrolment in open and distance education was twice higher as compared to conventional education during 1985 to 1992. There has been a significant increment of enrolment through the distance mode among the disadvantaged group such as the rural people, women, scheduled castes and scheduled tribes. The motivating factor amongst the distance learners were improving qualifications and social status, and getting better jobs.

Pandey (1996) assessed the extent to which IGNOU has succeeded in bringing the underprivileged sections of society under the network of education. Enrolment data for seven courses during 1990-95 was collected. Means and percentages were calculated to know gender wise, location wise and category wise trend and differences in students' enrolment for these courses. The findings indicated that IGNOU is becoming increasingly popular as is evident from its rapid growth of enrolment during 1986-1995. Though distance mode provided another chance to many young and old aspiring learners to realise their educational dreams, it still suffered the same drawback in providing educational opportunity to the
deprived groups, thereby contributing very little to bridge the gap between have and have-nots in the field of educational opportunities.

Panda et al (1999) examined the growth and development of Indira Gandhi National Open University (IGNOU). The study found that: (i) both the registered and active students increased to 172.55 and 516.58 thousand respectively from 75.70 and 182.40 thousand during 1992-93 to 1998-99 whereas the percentage of active students fell from about 42% to more than 33%. (ii) Between 1995 and 1999, enrolment in certificates, bachelors and post graduate programmes have increased; both Bachelors and Masters have almost doubled. (iii) There have been a steady increased in arts, commerce, science, computer science, creative writing/journalism, engineering and technology programmes. (iv) Enrolment in post graduate diploma programme, in tourism studies, health, nutrition, childcare and nursing education and management programmes decreased during the period. Nearly 60% of the enrollments were from two of the professional areas in management and in computers.

Subramanian (1999) traced the development in distance teaching under Birla Institute of Technology and Science (BITS). Launched in 1988, the distance programmes in Science and Technology was to meet the needs of manpower training and development in industries and to meet the requirement of employed professionals. The course offered under the distance learning programme has been increased by three fold since its inception. It emphasizes more on collaborative
programmes sponsored by industries for their manpower development of their employees.

Swamy (2002) observed that enrollment in distance education has been steadily increasing and the rate of growth is much steeper than that of formal education. In the period 1982-83 to 1988-89, the rate of growth was 3.9 per cent in the formal system and the 16.2 per cent in the distance education system. As on 1988-89, nearly 83 per cent of total enrolment in open and distance education were in correspondence courses of the conventional universities and 17 per cent were in open universities. However, in the 1990s, the enrollment in open universities has been growing more higher than in correspondence courses. In 1999-2000 the distance education enrollments were 17 per cent of the total higher education enrollments.

Sivasroop, (2002) traced the enrolment trends of the learners in IGNOU during 1991-2000. During 1991-2000, IGNOU Regional Centres increased from 16 to 26, Study Centre from 170 to 504, and programmes from 14 to 50. Enrolment in Bachelor Degree Programme (BDP) dominated between 1991 and 1994 while Management Programme (MP) during 1995 to 1997 and Computer Programmes topped in later year of the decade. Region-wise, the Eastern region topped overall enrolment for six years while and the Western Region was the second highest for five years in the decade. Southern region topped in Management and Engineering Programmes. Eastern region topped enrolment in Graduation and Diploma
Programmes for eight years (1991-1998) while Western region topped for nine years in Certificate Programmes.

Gujral and Ranjan (2004) traced the strength and limitation of distance education in meeting those deprived of higher education in areas outside the conventional system. They found that utilising the same delivery mechanism of distance education successful in high enrolment area is not suitable in areas with low enrolment potential. They suggested new models which are financially viable and have the ability of accessing higher education to areas not provided. The first model is Distance Education Access Node (DEAN) suitable for areas with low enrolment chance for higher education. The second is Full Time Study Centre (FTSE), suited to replace the conventional colleges where such colleges are not viable because of low enrolment or because of lack of infrastructure and manpower.

Shah (2008) observed that in order to move along with the fast changing technological advancement arising out of globalisation and liberalisation, India needs to speed up the alternative higher education- the open and distance learning system. The ODL with its low cost could provide access to inaccessible areas to many of the large aspiring learners. The study also observed that there was a phenomenal growth in the distance education students' enrolment. Within a span of twenty years during1987-2007, there was an impressive 107 times growth in enrolment with the annual growth rate of 28.01 per cent. However, accessibility for the disadvantaged categories like women, SC and ST, rural and other deprived section was
discouraging as they shared only 25% in the enrolment. The main weaknesses observed in ODL system was the low rate of pass out students.

2.2.2 Studies Relating to Characteristics and Profiles of Learners and Related Issues

(a) Studies relating to Characteristics and Profiles of Learners

Prasad (1988) analysed the profile of learners at Andhra Pradesh Open University (APOU). He found that more than three-fourth of the students admitted in APOU was from the formal streams. Arts were the most popular faculty followed by Commerce and Science. Three-fourths of the learners preferred to study through the Telegu medium, which was the regional language of the state. The advantage of educational opportunities provided by A.P. Open University was taken mostly by urban population. The study further observed that a high proportion of students were males and more than half of the students (54%) were married. The percentage of students drawn from weaker sections, especially Scheduled Castes and Schedules Tribes was relatively low - 30 per cent were from backward castes and around 10 per cent were from the Scheduled castes and Scheduled tribes. The remaining 60 per cent belonged to well to do sections of society. Though a substantial number of women joined the A.P Open University, their number was not proportionate to their population. A large number of them were housewives. Age-wise details revealed that most of the students were either young or middle aged. The mean age worked out to be 28 years. A large number of students were unemployed. The proportion of
working population is not significant. The percentage of agricultural or industrial workers was awfully negligible.

Vandse and Poll (1990) surveyed the backgrounds of women correspondence students. The main findings of the study were: (i) Correspondence education was popular more in the urban areas and among the working women. (ii) The medium size family and the low salary group were taking more advantage of distance education. (iii) Most of the students pay their fees from their earnings or in a few cases from the family income or from the aid given by the social-religious institutions.

Kanchan (1996) evaluated the distance education programmes at the college and university levels in Jammu University and IGNOU Regional Centre. The findings revealed that the percentage of female enrolment in distance education programmes of Jammu and Kashmir is higher than males in all the categories of rural, urban, general, married, unmarried and employed whereas in IGNOU the male enrolment percentage was higher than female in all categories.

Kumar (1998) investigated the distance learner’s academic self-concept, study habits and attitude towards distance education in relation to academic performance at first degree level. It was found that majority of learner enrolled in 1991 were male and 25 years and above age group. They had an average academic self-concept, exhibited good study habits, held positive and favourable attitudes towards distance education. The academic performance of the distance learners
were significantly related to academic self-concept, study habits and their attitude towards distance education.

Bala (1999) who studied distance education in electronics telecommunications found majority of the students were male and only 13.85 per cent were female. Most (67 %) of the respondent were employed while 33 per cent were unemployed and more than fifty per cent were from the English medium and 47.60 per cent were from the vernacular medium

Biswa and Priyadarshini (1999) showed that there has been a phenomenal increase in enrolment under open schooling system in the country. There were 1672 learners in 1980-81, but by the year 1995-96, enrollment touched to 71253 learners, showing an increase of more than forty two times. The age profile showed that open school is catering to a higher percentage learners in the age group of 17-19 years. Gender-wise, 67 percent learners were male and 33 percent were females

Panda et al (1999) showed that during 1995 to 1999, male enrolment under IGNOU decreased from 77.75 per cent in 1995 to 73.53 per cent in 1999 while female enrolment increased from 22.25 per cent to 26.47 percent. Urban learners dominated student enrollment and IGNOU had been able to attract a large number of employed students to its various academic programmes.

Reddy and Manjulika (1999) examined women enrolment in distance education. They found that 33.6 per cent women were enrolled in distance education as against 66.4 per cent for men; 52.6 per cent of women are enrolled at the UG
level degree courses, 20.6 per cent at PG level degree courses, 20.1 per cent in Professional degrees, 3.8 per cent in Certificates and 2.9 per cent in Diploma courses. The most popular courses among women were B.A (38.1%), B.Com (10.3 %), M.A (15.3%) and B.Ed (17.3%) which altogether accounted for 81 per cent of the total women enrolment in distance education. Majority of women opted for conventional subject combination such as Arts and education course rather than more professional courses. The most popular professional course among women was Bachelor of Education.

Kumar (1999) studied on distance learners’ attitude towards distance education. The major findings were: (i) Distance learners showed a positive and favourable ‘above average’ attitude towards distance education irrespective of their background characteristics. (ii) Married students possessed significantly higher positive attitude towards distance education as against unmarried ones. No significant difference in attitude towards education was noticed among distance learners on sex, age, locale, social class, academic stream, educational level, employment status and experience in distance learning and discontinuity in studies. (iii) A significant difference in attitude existed among the subgroups of learners based on sex, marital status, locale and discontinuity in studies with regard to the part ‘General Attitude’. (iv) Significance differences in attitude also existed with regard to the parts of ‘Attitude towards Admission Procedures’ and ‘Self-Instructional Materials’ for the learners of different marital status. (v) Significant differences in attitude existed in respect of ‘Counselling Sessions’ for the subgroup based on academic stream.
Sharma (1999) made a comparative study of the distance education programmes of IGNOU and the International Centre for Distance Education and Open Learning (ICDEOL), Himachal Pradesh University. The study found that male student enrolment of ICDEOL was higher than female enrolment in almost all the categories of rural, urban, SC, ST, married/ unmarried, employed and all students in the age group of 20 to 30 years. The percentage of male student enrolled in different courses with IGNOU Regional Centre was more than that of females in almost all categories of SC, ST, rural, urban etc. ICDEOL and IGNOU have given due consideration to the recommendations of UGC and both the institution catered to the needs of local community and students. The students belonging to the reserved categories SC, ST, OBC, and physically challenged admitted in IGNOU were entitled for reimbursement in fees whereas such categories do not get in ICDEOL. Further, distance learners in both the institutions did not receive the instructional materials on time.

Rubdy and Sen (1999) examined distance education in English language programme under Central Institute of English and Foreign Language (CIEFL). It was found that the participants in both the courses were in-service teachers in English at secondary school, college and university level. Majority have post graduate degrees in English with teaching job and only few were outside teaching profession like house wifes and army personnel. Over the years, the number of male participants were found to be very high than female. Male dominated the PGDTE course at the secondary and at the tertiary levels. Only 25 per cent of the participants in PGCTE
course were willing to take the examination compared to 50 per cent in the PGDTE course and the number of failure is also much smaller on the PGDTE.

Subramanian (1999) examined the development of distance teaching under Birla Institute of Technology and Sciences observed that while 90 per cent of the students were male; only 10 per cent were female. Only 5 per cent were from the rural areas and the rest comes from the urban areas. Most of the students are in the age group of 20–40 years and come from different occupational distribution, 44 per cent were from industry 28 per cent from laboratories and few (15 per cent) from educational institute and the rest belongs to other occupations.

Varghese and Pulimood (1999) conducted a survey of distance education programme in hospital and health systems management in Christian Medical College (CMC), Vellore in collaboration with Tulane University, USA and Birla Institute of Technology and Science (BITS), Pillani. The study showed that the students selected for the various courses were from different health care sectors. Priority seemed to be given to government employees as 51 per cent of the admission was given to government/public undertaking sector. The number of female participants rose from 8.5 per cent to 27.3 per cent during the study period. Majority of the participants (90 %) were from the age group of 31-51 years. The overall drop-out from the course had been 10.1 per cent. Increasing better candidates in the entry qualification indicated greater demand of the programme.

Swamy (2002) showed that female enrolment in distance education programme was 41.3 per cent in India during 1989-2000. He also observed that
more than 75 percent in Andra Pradesh Open University (APOU) and about 60 per cent came from non-formal stream. The age profile further indicated that the age group 46 and above composed of a sizeable proportion of total enrolment. There were a large proportion of unemployed students indicating that Open University system supplemented the formal system in meeting the demand for conventional programmes in higher education. There was poor response from the employed section of women.

Srivastava and Ramegowda (2006) made a study on the profile of distance learners during 2003-04. Stage-wise enrolment showed that the share of enrolment was the highest at the under-graduate level (54.2%), followed by postgraduate level (29.2%), diploma (16 %) and research (0.6%). Faculty-wise enrolment showed that bulk of the learners was enrolled in general programme like BA and BCOM. The general demographics of distance learners showed that the percentage of female enrolment was higher in distance education than conventional system - 48.75 per cent were women as compared to 40.22 per cent in the conventional system; 16.3 per cent of the learners were residing in rural areas, 8.8 per cent belonged to Scheduled Castes, 3.9 per cent Scheduled Tribes, 18.19 per cent Other Backward Class (OBC) and 0.25 per cent physically handicapped. Female enrolment reflected that at the postgraduate level, women were mostly enrolled in Master of Arts, Master of Commerce and Masters in Library Sciences; at the undergraduate level, the most popular programmes were B.A, B.Ed, BLIS and B.Sc (N) etc. Majority of women opted for traditional subjects such as Arts, Humanities, Education, Nursing, Food and Nutrition, Childhood Care, Maternal and Child health.
(b) Studies Relating to Utilisation of Academic Facilities

Khan (1992) evaluated the importance of instructional materials and the assignment. He found that the instructional material replaced the teacher, and that it should be written in conversational tone in simple and lucid style. Assignment being a major communication link between students and teachers were regarded very important by the students as the tutor commented assignment encouraged, motivated, guided or prepared them in their studies.

Kanchan (1996) noted that admissions to different courses were done by utilising counselling and mass media such as radio, T.V and newspapers by both the institutions. Both institutions organised contact programmes for the learners. The correspondence courses of Jammu University faced problems in accommodating students and resource persons while IGNOU faced no such problems. IGNOU provided teachers orientation through seminars, workshops and refresher courses and was also trained them in utilising the latest technology which may be used for self-instructional materials and other software. IGNOU provided assistance to the distant learners through TV and teleconferencing. The preparation of instructional materials followed by both the institution varies while IGNOU used the modular approach with a number of examples, illustrations, learning exercises, activities, self tests and references, developed by experts and edited carefully. On the other hand, Jammu University seems to follow the method of preparing a textbook. vii) The submission of assignments was compulsory in both institution and 25% of the mark they scores in the assignments was given weightage in the final examination.
Matheswaran (2001) examined the level of utilisation of support services by distance learners. The study showed that the learners in the city had a positive attitude towards IGNOU programmes than learners from other study centres. The majority of the learners did not receive the self-instructional material in time and only 26 per cent of the learners received materials in time. The learners did not make use of the study centres library facilities to the optimum level as only 14 per cent were using the library and the rest often or rarely used the facilities. Counselling services were not utilised properly since only 23 per cent were attending to clarify their doubts and the rest often or rarely attend the counselling session. Again, majority of the learners did not view T.V. IGNOU programs regularly as the analysis revealed that only 14 per cent of the learners viewed the programme.

Mishra and Gaba (2001) studied the use of activities in self-instructional materials by distance learners. Most of the learners used the activities as instructed by the course writers and have positive perceptions about the benefits of self-assessment question and terminal question given in the self-instructional materials. The respondents preferred short answer type questions. Majority of the respondents use blank space provided after the Self-Assessment Questions (SAQ) and in every page as margin space.

Mishra et al (2001) conducted a study on the learner’s view on print materials of IGNOU. It was found that: (i) 36 per cent did not receive the print materials in time and they had to suffer on this account; (ii) 41 per cent found the SLM fully self-instructional; (iii) most of them felt the need of a teacher during their studies;
(iv) 45.4 per cent found the language always simple; (v) 82 per cent of the learners found the expression clear; (vi) 63.6 per cent opined that the content was always logical and gradual; (vii) 72.7 per cent found the print material were attractive and 54.5 per cent expressed the presentation of the content was good; (viii) 31.8 per cent found the content of the print material ‘fully relevant’ to the societal needs; (ix) all the learners found the content useful in their life settings; (x) 61.1 per cent of the learners suggested that simple language should be used, 38.9 per cent demands more elaborate description of the content, 16.7 per cent wanted the print material to be sent to the learners on time and 16.7 per cent suggested an elaborated glossary for difficult words to be provided.

Sukumar (2001) assessed the utilisation of IGNOU’s Interactive Radio Counselling programme by the learners. The profile of the participants revealed that 79 per cent of the participants were male, 60 per cent married, 66 per cent undergraduate and 34 per cent postgraduate. The findings were: (i) 42 per cent of the respondents were aware of the topic presentation in advance; (ii) majority (78 %) identified radio announcement as their source of information; (iii) 34 per cent of the learners were listening to the radio counselling regularly; (iv) 78 per cent rated the presentation as good, 81 per cent were fully satisfied on answering the queries; however, 22 per cent of the respondent had difficulty with the language presentation.

Chaudhary and Bansal (2002) assessed the Interactive Radio Counselling for supporting distance education. The study revealed that 78 per cent of the respondents were male in 21-30 age group who were engaged in business and few
in private and government service. It was found that the level of participation was low except in management due to inconvenient timing and non availability of radio. Some preferred the use of regional language and English for interaction. Majority found the interaction effective and relevant while some found the frequent questioning disturbing. They were satisfied with the expert presentation.

Biswal et al (2002) conducted a study on the use of teleconferencing for training of teachers of national open school. Their findings indicated that majority of teachers were able to express freely their view and clear their doubts due to the interactive talk-back system. They found teleconferencing innovative, effective, interesting and flexible than the traditional methods of training. They expressed positive opinion to the tutor marked assignment and to the National Open School study materials.

Agarwal and Ganesan (2003) found that Interactive Radio Counselling (IRC) has reached a wide area and attracted a large number of learners as well as non-learners. They found the participation in IRC much higher amongst the general public than those enrolled learners and they found the IRC sessions useful and attractive.

Study done by IGNOU, Regional Centre, Hyderabad (2005) revealed that a large number of people participated in Interactive Radio Counselling programme of IGNOU. Between April 2004 and March 2005, the call from general public was 36 percent; 64 per cent called came from female while 78 per cent were male and 61 per cent were long distance call (STD).
Dwivedi (2005) examined the utilisation of self-learning material and its role in quality improvement in distance education. The study found that fifty per cent of the students observed that the study materials were good enough for their course; the content defined the topic and was according to their mental level. All the students felt that the study material was enhancing their knowledge and was based on the subject matter. Majority found the study material helpful in creative thinking, well integrated and the content according to the given topic but they found the study material not job related. They were also satisfied with the language, concept and vocabulary and the technical terms; however, some of the students felt that the language were not clear and understandable. They indicated satisfaction with the presentation of the content, organization, and illustration of diagram. They also found the study material motivating to the learners.

(c) Studies Relating to Follow-up Study of Successful Learners

Upreti (1988) examined whether the B.Ed degree programme offered by distance learning institute had any impact on the upward occupational mobility of elementary level teachers. The findings showed that the majority of the teachers have average performance. Vertical mobility was affected by factors like work-place, rural-urban background, location of schools, family structure, age, sex, religion and caste of the teacher and those most affected are cultivator. The majority of teacher trained found acquiring B.Ed helped to move up the ladder and urban teachers working in urban school enjoy more vertical mobility.
Woodely (1995) examined the status of United Kingdom Open University graduates from 3046 sample. The findings showed that out of 71 per cent response, 24 per cent indicated salary increment, 17 per cent joined new occupation, 36 per cent got promotion and changed to more specialized job in the same occupation.

The Open University of Hong Kong (1999) found that more than 90 per cent were satisfied with the continuous staff professional development through distance mode in a study based on sample of 488 employers. More than 70 per cent rated their education through OUHK ‘helpful’ and ‘extremely helpful’ for getting job skills, motivation and confidence at work, in further education to acquire further related skill. 80 per cent of the graduates informed that they benefited personal development through OUHK in career advancement and in job change.

Gaba (1999, 2007) evaluated the utilisation of IGNOU degrees by the graduate in the job market from a sample of 1755 B.A / B.com. Based on 24 per cent rate response, it was found that 57 per cent of the respondents were in the job before joining IGNOU programme, 30 per cent joined for further education, and 16 percent got promotion, 21 per cent got self confidence and 19 per cent were in the same position as before joining IGNOU programme. Out of the 13 per cent who were unemployed before joining the IGNOU programme, 22 per cent got employment and 50 per cent joined further studies.

Gaba (2007) studied the utility of degrees for the career path of online learners in terms of getting employment, promotion, continuing education and others. The findings of the study were based on 37 graduates. Of the total
population, 87 percent were male, 99 per cent have 10+2 qualification and unmarried. Majority of the respondents were female (89 per cent); 62 per cent were from Delhi and the rest from urban areas. Most (86 per cent) were in the age group 21-25 years and the rest were in between 26-30 years. 90 per cent of the respondents owned computer, 40.50 per cent had an average internet skill before entering the programme, while 35 per cent were beginners and 13.5 per cent were experienced and good in online environment. All the respondent parents were having qualification of tenth standard and above and majority of the respondents' parents were in service sector and belong to middle income group. He further observed that all of the respondents were fresh from formal institution with +2 qualifications and were unemployed before registering with the programme. Out of 37 respondents, nineteen respondents got regular job and four respondents got part time job after completing the course programme through online mode. It was also found from the respondents that the programme did not help them to get job but had helped the respondent in enhancing their skill. They also acquired communication skills in writing, verbal as well as in non-verbal. Most of the respondents did not agree that they got their present job after obtaining their degree through virtual mode.

2.2.3 Studies relating to infrastructure and related inputs

(a) Studies Relating to Study Centres and Other Support Services

Mani (1982, 1987), examined the learning support systems of Madurai Kamaraj University distance education programme. He found that many instructors
lacked the skills to communicate and motivate the learners. Students found the study materials sufficient and did not feel the need for reference or text books. Mani (1987) evaluated various learning support systems of the distance education programme of Madurai Kamraj University. The sample of the study was drawn from three out of five personal contact programmes organised in different places in Tamil Nadu. The students, among other aspects of the support system reported that the study centres were very few and ill-equipped. They expected that the study centres should have a full-fledged library, radio, audio-tapes, TV, video-cassettes and full time instructor for academic and administrative counselling.

Jayagopal (1988) conducted experimental study to find out the impact of multimedia, i.e. TV, radio and animator, on rural adult learners at some of the selected learning centres in the villages of Tamil Nadu. The investigations threw lights on the potentialities of selected media, such as TV and radio, for increasing the efficiency of educational programmes. The most important ones were: (i) Media, which is often neutral, can be converted into participatory media, through proper source-receiver linkages. (ii) Through proper training, it is possible to increase the capabilities of the trainers/teachers to facilitate the maximum use of the media. (iii) By structuring the curricula as media-oriented the learners can be motivated. (iv) Media can be used effectively to raise the level of awareness and knowledge of the parents, thereby making it easier to mobilise the parents, who in turn will help their children participate in the elementary education programme (in the school or outside the school). The study concluded that media is a principal supporting system of education that can cover a large area, reach the masses and can be a motivating
tool; and hence organising distance learning programmes for weaker sections through open university/school system is possible, natural and urgent.

Singh (1988) observed that a network of study centres is of vital importance to a distance educational institute for providing useful support to the students in their learning. Each study centre must have a counsellor who is competent enough to give general counselling, advice and guidance to students on the methodology of learning through the distance system and general aspects of the various courses. Some study centres have good library, audio and video equipment and other facilities.

Rathore (1991) indicated that the study centres of correspondence institutes in India were not fulfilling the purpose of supporting the distance learners the way they are ideally expected to. The study suggested that library of the study centres should be equipped with standard text and reference books. Moreover, book-bank facilities should be created for the benefit of the distance learners and the presence of a tutor should also be ensured at the study centres daily at fixed hours.

Shah and Mandal (1993) experiments the use of modern and conventional media for distance education and found that using instructional strategies like video film and booklet to be effective in teaching home science and in English language competence.

Goel and Sarangi (1995) explored the effectiveness of IGNOU Educational TV programmes in direct talk, talk back and interactive mode. By using a purposive
sample of 7 IGNOU ETVs as the context, the study found that there was a significant gain in six of the IGNOU ETV programmes through direct and talkback modes; and the interactive mode made a momentous gain in all the seven programmes.

(b) **Studies Relating to Programme of Studies**

Dhillon (1978) evaluated the correspondence courses programme for the farmers at Punjab Agricultural University. He found that 46.67 per cent of farmers at the correspondence courses rated the content of the lessons relevant to their respective needs. Majority of the farmers have understood the lessons and made use of the information contained in the lessons.

Saini (1979, 1981) studied the correspondence course for small and marginal farmers in Punjab. He reported that distance teaching was efficient in the fulfilment of the information needs of the learners in respect of the latest agricultural technology. Majority of the learners reasonably grasped the contents of the lessons. The lesson proved useful to the learners not only in informing but also in ensuring the application in the field situation information relating to improved practices of selected crops. Majority of the learners read the lessons thoroughly for (i) acquiring full information and shared those with others, (ii) to transfer information and (iii) clarify their own doubts.

In another study, Saini (1981) made another evaluative study of the correspondence course run by the Punjab Agricultural University for farm women. He indicated that the respondents read the lesson in their leisure time alone.
However, they shared the information with others in order to transfer and to clarify their doubts. The respondents found the content of the lessons easily understandable and have fully used the information given.

Kaur (1982) analysed the comprehension and use of information from correspondence course for farm ladies of Punjab. He observed that majority of the learners grasped the content of the lesson. They found the information in home science and other allied fields not only useful but applicable in the home situation. They supported the sequencing of sending the lessons and the division into different topics and sub-topics.

Renu (1990) studied the success in distance learning system in relation to some key learned and institutional variables. The variables included some characteristics of learners, their self-image, attitude towards distance education and reasons for joining the courses. It was found that both learner variables and institutional variables contributed to the success of distance learning at the B.Ed level. It was found that success depends on the course materials, two-way interaction between tutor and learner, personal contact programme, the assignment system and the evaluation system.

Khan (1991) studied the effectiveness of teachers’ distance education programme offered by Kashmir University. The findings revealed that: (i) there was an overall growth of enrolment; (ii) a substantial increase in the male and female learners, (iii) the pass percentage almost the same with formal system; (iv) the per
capita cost is lower in the distance education; (v) the competency of teacher trained through the formal system is better.

Pugazhenthi (1991) examined the academic, administrative and financial aspects of the teacher education programme through correspondence system under Madhurai Kamraj University. He found that majority of the teacher candidates who were from the urban areas had a very low rate of drop out and the cost of the training less expensive than the formal course. However, the learners found the functioning of the study centre inadequate and inefficient, the methodology unsatisfactory and lack practical teaching.

Pandit (1994) traced the level of perception of women learners about education in general and distance education in particular with reference to Dr. B.R. Ambedkar Open University. The main objectives of the study was to find out the relevancy of the existing academic courses to the needs, motivation and aspiration of women learners from both rural and urban areas and to identify the courses and skills essential for women and their opinion about the different courses offered. The findings indicated that they had a positive perception and a motivation for pursuing higher studies. They found courses in computer, teacher training (B.Ed.), textile designing/tailoring, nursing, secretarial assistance, child care and development, interior decoration, food and nutrition, women studies, sericulture and beautician relevant.

Patil (1997) studied the management of distance education through correspondence courses offered by Mysore University (ICCCEM) with IGNOU of
Karnataka state. His findings were (i) ICCCEM students support services consisted mainly printed instructional material with a short term contact programmes while IGNOU offered its services through printed materials, media like TV, radio and teleconferencing with occasional counselling session. (ii) IGNOU evaluation system is continuous whereas ICCCEM is a term end examination. (iii) ICCCEM used the lecture method for teaching and Personal Contact Programme, in case of IGNOU, as it emphasised self evaluation, the lectures were supplemented with discussion. (iv) The average expenditure used by the students of ICCCEM was much higher than IGNOU as more expenditure had on travelling, lodging and boarding had to be incurred due to absence of study centre in the vicinity.

Bala (1999) made an evaluative study of distance education in electronics telecommunications. The Institute of Electronics and Telecommunications Engineers (IETE), the apex body in the field of electronics and telecommunications in India made a unique achievement by opening a Correspondence Course Unit which in 1980 developed into Centre for Distance Education. The students enrolled for the Diploma of the IETE were 14,567 in 1991; 77.40 per cent were enrolled in Associate Member of Institute of Electronic & Telecommunications Engineers (AMIETE) while 22.60 per cent in DIPETE programme (diploma course). Contact programmes were organised to clarify doubts with help from local expert. It has 22 local centres and 6 sub-centres. It utilised the radio and T.V. and teleconferencing in remote and distant areas.
Rubdy and Sen (1999) critically assessed Central Institute of English and Foreign Language (CIEFL) distance education in English language. The Institute offered a one year courses both in PGCTE (Post Graduate Course in Teaching English) and PGDTE (Post Graduate Diploma in the Teaching of English). The major limitations of the PGCTE / PGDTE courses were that: (a) it is too theoretical and not pedagogy–oriented practical courses. (b) Regular updating of the course materials is needed as some of the courses were found to be extremely outdated. (c) There was inadequate use of educational technology and a media support material.

Varghese and Pulimood (1999), in a survey of distance education programme in hospital and health systems management found the following problems – (a) the whole concepts of management and distance education are novel and challenging problem to the faculty who are used to the traditional methods of learning. (b) Courses like statistics, health economics, epidemiology, and operation management create problems to the medical group. (c) Producing learning resource materials, modules and hand-out is another obstacle, (d) Lack of literature in Indian Hospital management in the country. However, to overcome the big hurdle, an integration of various disciplines, various sectors, various social dynamics and other innovation are very important.

Naidu (2000) studied the organisation and management of distance education programmes of Dr. Ambedkar Open University. The findings revealed that the university required: (i) a strategy to meet the various need of the students, develop a good relations with students, solving the problems of drop-outs and a new
infrastructure facilities for the future; (ii) to provide more study centres and accessibility in inaccessible areas; (iii) a provision for better policy for better student support services and delivery system.

Sharma (2002) analysed the learners’ perception of the Teacher Education Programme of IGNOU. The main findings of the study were: (i) Females have higher enrolment in programme than males and the programme is equally accessible to candidates living in rural and urban areas. (ii) Student teachers have positive reaction on the admission procedure while study materials also got positive ratings from the majority of the students but delay in receipt of study material needs to be taken care of. (iii) Majority of the students wanted additions in the content based methodology course while insufficient interaction with the counsellors and peers and negligible provision of audio-video is reported by the teacher students. To a large extent, students are satisfied with Practice Teaching Component. (iv) Majority of the student teachers expressed dissatisfaction regarding discussion of assignment questions and feedback on assignments by the resource persons.

Pradhan and Chaudhary (2004) observed that distance education intervention on teachers’ training under District Primary Education Programme (DPEP) can be extensively used to train a large number of teachers and para-teachers and also suggested distance learning intervention on priority may be considered for a larger or a relatively backward states.

Rao (2008) examined the access of media infrastructure at homes of the distance learners and awareness of media support services and infrastructure at the
study centres. The findings revealed that only few learners availed of the media support services provided to them. Majority of distance learners at the grass root level are not even aware of the wide variety of media and allied services provided through the distance mode.

Garg and Sangai (2009) assessed the B.Ed programme of IGNOU. They found the programme well designed and the printed study materials developed in English was of very high quality. They also found that learners showed little aptitude for problem solving, asking questions and skill of logical explanation.

(c) Studies of Cost of Open and Distance Education

Mulay et al (1986) analysed the cost of 18 correspondence institutes offered by Indian Universities in the dual mode system with reference to 1981-1982. The recurrent per capita cost was Rs.469.77 but varied from Rs 63.84 to Rs1268.72 per learners. In analysing the income and expenditure pattern, the student fees accounted for 84.91 percent excluding those universities receiving UGC fund. The universities on an average spend 22 per cent of their revenue on teaching staff, 15 per cent on student services, 21.9 percent on printing and postages and 21.3 percent on other items. Out of the 18 universities under study, 11 had surplus budget, 6 had deficit and 6 of the surplus universities financed their parent universities.

Agrawal (1987) made a comparative study of the unit cost of distance and traditional education between a Central Government Institution, which imparted
education through regular classroom lectures, and a private managed body which imparted through correspondence. The study revealed the unit cost at private is higher by 39 per cent than government mainly due to lower level of utilisation of teaching and administrative staff by private institution.

Ansari (1988, 1992) studied the determinants of costs in distance education and various aspects on the economics of distance education with reference to correspondence courses. In another study, he attempted to analyse the cost of Delhi University and its correspondence courses for the year 1980-81 to 1986-87. In 1980-81 the per student cost was Rs 643 and Rs 507 in 1986-87. Comparing the 15 dual mode universities’ cost of conventional and correspondence course, the study worked out Rs 500 per student to correspondence education and Rs 2194 to conventional education. Similarly, the average cost of correspondence course in Delhi University was cost effective by 17.5 per cent than the cost of its conventional education to 25 per cent.

Datt (1991) analysed the cost of nine correspondence institutes in the dual mode systems. The cost per student varied between institutes. The study classified the correspondence institutes into those generating a surplus and those ending into deficit. The surplus institutes were employing only few staff and an insignificant investment in the quality of study material and student support service. The deficit institutes were due to low fee per student, low enrolment and high non-teaching staff.
Singh et al (1992) gave an account of the financial and economic situation of correspondence education in India. Out of the 25 correspondence institutes they found that 18 had a surplus budget and the seven had running a deficit. The per student unit cost varied from Rs 125 to Rs 8933 and the average unit course was Rs 1512 per student.

Rao (1992) made a comparative analysis of costs of BRAOU with selected conventional university colleges in the neighbourhood. The study found that the expenditure on student in a conventional university is eight to ten times higher than the cost per student in BRAOU

Pillai (1993) examined the cost effectiveness of IGNOU and also analysed its unit costs, structure and behaviour of costs. The study concluded that distance education programme is not always cost effective and low cost. It depends on the programme relevancy, development strategies, student numbers, learning packages, student assessment practices, number of specialized courses, delivery system, adoption of high/low cost technologies etc.

Naidu (1994) compared the unit costs of three universities namely IGNOU, BRAOU and YCMOU and 79 conventional first degree colleges in six states. The study found that the unit costs of open universities are lower by 60 per cent to 86 per cent than conventional system. The study also revealed that the drop-out rates in distance programmed are very high, however the cost per student in open university were still less than the conventional system.
Gaba (1999) carried out a study on the cost analysis of National Open School (NOS) at the national level. The findings of the study were: (i) In 1989-90 the expenditure in NOS was only Rs 23 million at the current price, it increased to Rs 97.69 millions in 1996-97. (ii) NOS major source of income was tuition and examination fees and a small contribution from the government. (iii) The main expenditure was printing of study material and other publication which increased from 42.6 per cent in 1989-90 to 45.9 per cent in 1996-97. (iv) The other major expenditure item was examination; however, it has declined from 23.5 per cent in 1989-90 to 16.1 per cent in 1996-97. (v) The salary of both academic and non-academic expenditure has declined from 16.4 per cent in 1989-90 to 11.5 per cent during 1996-97 due to appointment of ad hoc and deputation basis. (vi) As the enrolment, get higher the unit cost of NOS for 1989-90 which was Rs.471 increased to Rs. 1050 in 1996-97. (vii) The unit cost of learning materials for the Senior Secondary Course introduced from 1989-90 were also analysed. It was found that the average cost of 10 despatches of each subject were Rs.1399.10 (viii) The cost of learning material at the Senior Secondary Course was Rs.6111 thousand (75%) including designing and composing and paper costs. (ix) The salary for the academic staff Rs. 985 thousand. The study revealed that the government fund is inadequate and the burden falls upon the students in the form of fees and tuition.

Pillai and Naidu (1999) analysed the cost of open-university education in India- the cost structure, economies of scale and development of cost models for IGNOU. They identified three distinct categories of activities—development and production of learning packages (print, audio and video), student support services
(counselling, assignment, examination, etc) and institutional overheads (general administration, common supplies and services, etc). They also classified the behaviour of different types of costs into variables, semi-variables and fixed costs in relation to the student numbers. In 1989 the cost of 8 credits was worked as Rs 32 lakh on the development and production of printed materials, Rs 224 lakh on production of video programmes of 25 minutes each and Rs 27 lakhs to produce five audio programme of 15 minutes each. The total cost per student estimated was Rs1750 in 1989-90. They concluded that IGNOU can be more cost effective for a student population of over 70,000 – 80,000.

Sharma (1999) compared the cost of distance education programmes of IGNOU and the International Centre for Distance Education and Open Learning (ICDEOL), Himachal Pradesh University. Under ICDEOL, the total expenditure on the salaries of the staff for the 1996-97 and 1997-98 were 63.32% and 62.4%; the share of expenditure on academic staff was 28.45% and 26.1% and in non-academic staff, it was 38.83% and 36.3% respectively. Under IGNOU, expenditure on the salaries of the staff was 27.55% and 23.8% for the 1996-97 and 1997-98 respectively. The expenditure on academic staff was 9.75% and 8.6% and in non-academic, it was 17.8% and 22.2% respectively for 1995-96 and 1997-98. The recurring cost per students in ICDEOL for 1996-97 and 1997-98 were Rs. 477.50 and Rs. 528.98 but the non-recurring cost per student was Rs. 228.47 and Rs. 308.83 respectively. Further, the total per student cost was Rs. 705.98 and Rs. 837.79 respectively for the two sessions.
2.2.4 Studies relating to problems of open and distance education

Panda et al (1999) observed that the common problems encountered under open and distance education were: (i) delay in dispatch of study materials, (ii) delayed in providing information about counseling sessions, (iii) non-compliance of the principles and pedagogy of assignment preparation, (iv) evaluation and writing tutor comments, (v) lack of access to support services due to limited numbers of study centres and (vi) inadequate monitoring and regulating mechanisms.

Gupta (2000) studied the composition, problems and motivating factors of correspondence course students at the Institute of Correspondence Courses and Continuing Education, University of Allahabad, Allahabad. The problems revealed by the learners were as follows: (i) 64 per cent of the students found the duration of the contact programme not satisfactory; (ii) 44.4 per cent complaint examination result; (iii) 43.8 per cent faced problem relating to cooperation with the staff; (iv) 42.4 per cent faced boarding and lodging problem; (v) 36.8 per cent has difficulty in availing information; (vi) 35.1 per cent need guidance and counselling; (vii) 32.7 per cent indicated problem in getting study materials and 27 per cent had faced problem in the arrangement of examination. The motivating factors to join the correspondence course were: 45 per cent was to obtain degree as they could not get admission in regular course, 18.4 per cent due to late admission in regular course, 17 per cent indicates good quality of study materials, 16.1 per cent non availability of desired subject in regular course, 15 per cent on the availability of spare time for competitions, and 10.8 per cent due to low cost of correspondence course.
Jaiswal (2002) surveyed on the problems of distant learners relating to admission, fee, self learning material, contact classes, home assignment and validity of the course. The findings showed that (ii) 60 per cent of the learners developed fear in passing the entrance exam and more than 20 per cent have the confidence to pass entrance test. (ii) Fifty per cent respondents stated that fees were affordable but 84 per cent of the learners were not satisfied with the quality of education. (iii) Majority (84%) are not satisfied with the quality of education and felt contact class just a formality and found the timing of contact classes inconvenient. However, they found the study centre satisfying the academic need of students. (v) 74 per cent of the learners developed phobia regarding the validity of degrees given by the Open University and 92 percent of the learners felt they get less recognition by the society. (vi) 60 per cent felt satisfaction by writing home assignments.

Kumar (2002) investigated the problems faced by the students of IGNOU in Ahmedabad. The objective was to study the problems of student relating to admissions, instructional materials, assignments, counselling sessions, on evaluation and communication. It was found that while more than fifty per cent of the students received the study materials in time, a large number (43.83%) of the students did not receive material in time. Majority of the students understand the study materials. Only 4 per cent of the students rated the study materials as poor quality. Regarding counselling and contact programs more than fifty percent felt that counselling and contact programs were available as per needs while 47.79 per cent do not feel so. About 60 per cent of the students were taking advantage of counselling. More than fifty per cent of the students found counselling effective while
only 6 per cent does not found counselling effective at all. Again, 54 per cent of the students found the assignment not clear and most (88 per cent) of them felt they needed guidance for doing their assignment and 52.43 per cent felt the guidance received was inadequate. Majority of the student perceived their assignments useful and helpful in learning. Fifty per cent of the students found evaluation appropriate. It is surprising that while more than half of the students (53.33%) submitted their assignments in time, 46.67 per cent could not submit it in time. Both the staff and the students faced problems delay in declaration of results and incomplete declaration of results.

Sharma (2002) evaluated the learners’ perspective of the support services and academic problems faced under distance education. The study found that 90 per cent of the students faced problems during their studies. The areas where majority faced the problems during studies were in getting information on the system, receiving information on induction meeting, receiving set of assignments along with study materials, preparation of assignment responses, receiving schedule and counselling session. Although they did not face problems during examination and at pre-admission stage, they faced problems at the time of term-end examination in getting examination forms, in filling up of examination form and in receiving examination Hall Ticket in time.

Sharma (2003) investigated the needs and problems of IGNOU students in Jammu region. The study revealed the followings: (i) The habits of utilising library depend on the age and profession of the students. (ii) Students residing in hilly and
far flung areas had no access to the library facilities and were at disadvantage than to those residing in the city. (iii) Majority of the student residing in the city opined that the regional and study centre libraries were not enough to meet their requirements. Besides, they were not issued for home reading.

Reddy, (2005) examined and analysed grievances of distance learners in the directorate of distance education of Sri Venkateswara University. The findings were: (1) There was a delay in sending the admission form to the students who submit their admission applications through post. (2) Many students (30%) were having problem in getting the study materials in time. (3) 29% students were of the opinion that the recent current changes and recent university question papers have not been incorporated in most of the study materials at UG and PG degree level. (4) 5% of students were of the view that the contact programme classes were not up to their expectations. (5) 48% students have told that they are yet to receive reply even after 30 days from the date of lodging the complaint letter with the DDE. The study suggested that the course in charge of the various courses should be involved in the spot admission for the students. Necessary and timely steps must be taken to distribute study material to the students on the submission of fee receipt by the concerned in charge. Steps should be taken by the authorities of the DDE to distribute examination application form and also course completion certificates at the venue of the contact programme classes. To enhance the quality and efficiency of contact programme classes, a separate booklet consisting of university model questions in each subject be prepared for each degree course. (11) The existing student grievance should be strengthened.
2.3.0 RELEVANCE OF THE PRESENT STUDY IN RELATION TO THE STUDIES REVIEWED

A review of research studies relevant for the present study showed interesting findings on the performance of open and distance education in the country. These studies revealed that open and distance education played a significant role in providing flexible and cost-effective learning opportunities. Open and distance education has provided increased educational opportunity to women, ethnic minorities, the unemployed and the educationally backward society and areas. The main lacuna of these studies, however, was that only few studies examined the problems relating to the isolated and inaccessible places like Mizoram. The State of Mizoram which is located in the north eastern region of India and lying in the most inaccessible parts of the country experienced tremendous growth and substantial diversification of learning opportunities in open and distance education system over the last two decades. It is imperative to have a systematic study on the status of open and distance education in the state which is known for its high literacy rate in India. The investigator, therefore, decided to have an analytical study of open and distance education in Mizoram with reference to the profile of learners, infrastructure and challenges.

A review of the available studies under the category of profile of open and distance learners showed that these studies investigated social backgrounds of the learners, like age, sex, marital status and formal educational status. In fact, student profile under open and distance education reflected the response of various social
groups which the open universities are supposed to serve. Student profile helped the educational planners to formulate suitable curriculum, course material development and appropriate organization structure for student support services. However, a review of studies under this category is very small and limited. The investigator, therefore, felt the need to conduct more studies in this area by incorporating more variables especially on economic and educational backgrounds of the learners like occupation of the students, parental occupation and educational status and family income.

The review of studies, further, revealed that only few studies were available under infrastructure which clearly indicated that this area has not been fully explored and examined by scholars. The availability of infrastructure and related inputs like manpower and financial played a crucial role in delivering support services to the learners. Although some researchers attempted to study the working of study centres under open and distance learning institutes and related services, the analysis of these studies showed that various critical aspects like physical facilities, manpower and financial inputs had not caught the attention of researchers. The present study assumes significance as it examined all the relevant issues under infrastructure and related inputs.

As open and distance education system is expanding and diversifying to meet the growing needs of the people, several problems were confronted in delivering flexible and cost-effective learning to the learners. This posed real and formidable challenge to the open and distance education planners. A review of studies under
this category revealed that only limited studies were available. The investigator, therefore, felt the need to examine various aspects of the problems affecting open and distance education system in the state of Mizoram.

REFERENCES


Agrawal,P.D., (1987). ‘Unit Cost in Conventional and Distance Education System: A Case Study. In B.N.KOUL et al (eds), Studies in Distance Education, New Delhi. AIU and IGNOU


Bala, M.L.,(1999); ‘Distance Education in Electronics Telecommunications’. In Santosh Panda (ed) Open and Distance Education: Policies, Practices and Quality Concerns’ New Delhi.


Dhillon,D,S., (1978): ‘An Appraisal of the Correspondence courses Programme for the Farmers (general) run by Punjab Agriculture University in the Punjab state’, MSc dissertation, Punjab Agriculture University, Ludhiana

Dwivedi, Girish, Kumar and Dwivedi , Kumar, Satish (2002): ‘SLM and its Role in Quality Improvement in Distance Education’ In Prof. S.P. Gupta (ed) Quality Assurance in Distance Education. U.P. Tandon Open University. Allahabad.


IGNOU (2005): ‘Interactive Phone-in Radio Counselling Programme’, IGNOU Regional Centre, Hyderabad (mimeograph)


Keagan, D., (1980):’On Defining Distance Education’. *Distance Education*. 1(1) p13-36.


Kumar, Anil, (1998): ‘Investigation into the Distance Learners’ Academic Self-concept, Study Habits and Attitude towards Distance Education in relation to Academic Performance at First Degree Level’ Ph.D *Dissertation*, Education. Ch. Charan Singh University. Meerut.


Mani, Gomathi, (1987): ‘Evaluation of Distance Education’ In B.N. Koul et al (eds) Studies in Distance Education, New Delhi AIU&IGNOU


Minnis, J.R. (1985): Ethnography case studies, ground theory and distance education research’ Distance Education, vol 6(2), 189-198


Open University of Hong Kong, (1999): ‘Employment and student perceptions of distance eduction and studying at OUHK’ *Centre for Research in Distance and Adult Learning*. The Open University of Hongkong. Hongkong.


Reddy, V.V. and Manjulikka, S (1999): Women in Distance Education. In Panda, S., (Ed) *Open and Distance Education Policies, Practices and Quality Concerns*, Aravalli Book International Limited, New Delhi.


Rubdy, Rani and Sen, Juhu (1999): ‘Twenty Years of Distance Education in English language Teaching’. In Panda, S., (Ed) *Open and Distance Education Policies, Practices and Quality Concerns*, Aravalli Book International Limited, New Delhi.


Sujatha, K., (1988): ‘Research in Distance Education’ In Indian Journal of Distance Education.


