CHAPTER – II

REVIEW OF RELATED STUDIES

2.1.0 Introduction

The 'review of related studies' is an essential aspect of a research study. It helps to promote better understanding of the thrust areas/ new trends of research in a particular field. It is necessary to review the studies related to a study in order to avoid unintentional duplication, and also to obtain potential information of the study. The review of related studies becomes a link between the proposed study as well as the studies already done in the area of proposed study, which provides a base/background for the development of the proposed study. It also helps to develop insight in a researcher to think and take up the problem/project in different directions and from different angles which previous researchers have not highlighted. Review of related studies allows a researcher to acquaint himself/herself with current/latest information in the proposed field or area of research, enables him/her to formulate the objectives and hypothesis for research and helps him/her to delimit the problem of research.

The present research work has been undertaken to know the rehabilitation mechanisms for special group children at pre-school level under ICDS projects. Very few studies have been conducted relating to rehabilitation mechanisms for special group children by the other researchers in India as well as in abroad. In this chapter some of such studies have been reviwed, which are both experimental as well as non-experimental in natures that give the investigator the idea towards the condition of rehabilitation of special group children. These reviewed studies have lots of implications for the evaluation, improvement and generalization of the results of the present study. Some of such studies have been given under the following broad headings:

1) Studies conducted on rehabilitation of special group children at pre-school level
2) Studies conducted on rehabilitation of special group children at school level
3) Studies conducted on rehabilitation of special group students at higher education level

2.2.0 Studies Conducted on Rehabilitation of Special Group Children at Pre-school Level

Dogru and Kayilli (2012) conducted a study on the topic titled, "Impact of inclusive education received in early childhood on school readiness: A case study."

The main objective of the study was to study the impact of inclusive education on school readiness of language and speech impaired children at pre-school level.

Methodology of the study:
The study was a longitudinal case evaluation that was carried out during the students' attendance to the institution before 3-6 years of age. This research work was done in pretest-posttest way without a control group with an experimental pattern.

Major findings of the study:

1) It is revealed that inclusive education implemented in the early childhood has positive effects on preparing child for school.
2) It was found that inclusive education applied in early childhood has important impacts on child's language development.
3) It also indicated that inclusive education implemented in early childhood improves the social skills among the children.

Prema and Rao (2012) conducted a study referring to the problem titled, "Language facilitation for pre-school children with hearing impairment: A curriculum based approach."

The study was undertaken with the objective of developing a structured curriculum framework to be followed in pre-schools that offers services to children with special needs (CWSN).

Methodology of the study:
The sample for the study consists of 10 children with hearing impairment was taken from the AIISH Preschool Training Centre. The sample was evaluated for language skills during pre-term, mid-term and post-term training with the proposed curriculum framework. Mean, SD and ANOVA were used to compile the data of the study.

Major findings of the study:

1) There was a significant difference in the language age of CWSN in the area of semantic and syntax in the pre-term, mid-term and post-term scores.
2) There was a significant difference in the language age after training for a period of one year.
3) There was a significant improvement in the language age of CWSN observed as a consequence of structured pre-school training programme.
4) The curriculum was effective in developing language skills, cognitive skills, and academic skills of children with special needs.

Srivastava and Rangasayee (2011) conducted a study on "A study of early childhood care and education of children with hearing impairment in Anganwadi Centre."

The objectives of the study:

1) To study the awareness level of AWWs about children with hearing impairment (CWHI).
2) To study the awareness level of AWWs about communication skills to deal with CWHI.

3) To study the awareness level of AWWs about hearing aids.
4) To study the difference between awareness level of rural and urban AWWs about CWHI.

Methodology of the study:
Using purposive stratified sampling technique, a sample of 38 AWWs from both rural (19 AWWs) as well as urban (19 AWWs) areas from Varanasi district of UP was selected for the present study. The data were gathered for the study by using a questionnaire. Both qualitative as well as quantative statistical techniques (Mean, SD, percentage, 't' test and graphical representation) were used for analyzing and interpreting the data.

Major findings of the study:
1) It was found that 12 (31.57%) AWWs have adequate awareness about CWHI. Hence, it is revealed that less than half of AWWs have adequate awareness about CWHI.
2) It was revealed that 21 (55.26%) AWWs have adequate skills and awareness towards early identification of CWHI. Hence, it is revealed that more than half of AWWs have adequate awareness about identification of CWHI.
3) It was found that 12 (31.57%) AWWs have awareness as well as adequate communication skills to deal with CWHI.
4) It was observed that 7 (21.05%) AWWs have adequate awareness about hearing aids. The result clearly shows that less than half of AWWs have adequate awareness about hearing aids.
5) There was no significant difference between the awareness level about CWHI among rural and urban AWWs.

Malatsi (2009) made an investigation of early childhood intervention services for children with disabilities and their families in Botswana.

The main objective of the study was to investigate how early childhood intervention was addressed in the Revised National Policy on Education (1994) and how the policy has been implemented by the practitioners and how the family perspective has been incorporated in service delivery.

Methodology of the study:
A mixed method approach was utilised to understand the perspectives of parents, teachers, government policy makers, and non-government organisation coordinators around the issue of early childhood intervention in Botswana. The total sample of the study comprised of 130 participants. The participants were selected through purposive sampling technique. Ninety-nine special educators were given self–administered questionnaire and two focus group discussions were organised for parents. Ten special education programme coordinators were interviewed. Descriptive statistical techniques were used to analyse the data.

Major findings of the study:

1) Early childhood intervention services in Botswana are still very limited and unevenly distributed.
2) There is limited number of qualified early intervention staff leading to inadequate services for families and children with disability. The study revealed that there are limitations in services and support, training of teachers, access to specialist support, absence of early identification and effective referral system.
3) It was also found that lack of coordinated service provision between the different service providers, prevented smooth service delivery in early childhood intervention. Coordination of service provision between the Ministries involved is complex, weak and at times dysfunctional. This needs to be strengthened in addition to more active government participation rather than leaving this responsibility almost totally on NGOs.
4) This study revealed that families are faced with a number of challenges relating to their needs to support the child with disability. These include lack of information about available services and inadequate support (both emotional and financial).
5) This study revealed that none of the existing disability programmes is run by the community. The non-involvement of the community was attributed to the view that the community believed it was government and NGO‘s responsibility to look after people with disabilities (88%), while 65% of the respondents also thought that it was due to lack of knowledge. There seems to be a general consensus that engaging families and local community could have significant advantages.

Azad (2005) conducted a research study entitled “Emerging shape of inclusive classrooms at pre-primary and primary levels.”

The main objective of the study was to find out the existing status of inclusive classrooms at pre-primary and primary levels with respect to physical, instructional and socio-emotional environment provided to students with special educational needs (SEN).

Methodology of the study:
Total 54 schools from 17 states were covered under the study, out of which 16 were pre-primary schools and 38 primary schools.

The major findings of the study:

1) It was found that if identification of special needs is done properly, systematic assessment procedures are followed, individualised educational plan is developed and monitored along with parents support, inclusion can happen in schools.
2) It was observed that if physical access to schools and classrooms is improved for all children inclusion can be practiced effectively. Teachers’ management

strategies in handling wide range of individual differences need improvement.

3) The attitude of 91% participants was found positive. Moreover, 87% heads, 76% special educators, 90% special teachers and 80% general teachers showed positive perception about inclusion. The entire general education system needs to adapt itself to meet the needs of all children.

Pan, Bonnie Wing and Catherine McBride (2005) experimented on "The impact of a dialogic reading programme on deaf and hard-of-hearing kindergarten and early primary school-aged students in Hong Kong."

The study investigated the effects of a special interactive dialogic reading method developed by Whitehurst et al. (1988) on deaf and hard-of-hearing children in Hong Kong.

Methodology of the study:
Twenty-eight deaf and hard-of-hearing children in kindergarten (first and second grade) were pre-tested on a receptive vocabulary test and assigned one of three conditions, such as dialogic reading, typical reading and control with age and degree of hearing loss matched. After an eight week intervention, the children were re-tested.

The major findings of the study:

1) It was found that dialogic reading group had a significantly greater improvement in vocabulary scores than did the other two groups.
2) Children in the dialogic reading group produced the largest improvements in receptive vocabulary learning among the three groups.
3) Greater gain in receptive vocabulary skills in the dialogic group was found compared to the other two groups, and the typical reading group did not show greater improvement compared to the control group. These results highlight the importance of the interactive nature of parent-child reading and indicate that typical reading does not fully exploit the potential of parent-child reading.

Venkatesan (2005) explored the daily activities of preschool children with developmental disabilities and autism spectrum disorders.

The main objectives of the study:

1) To prepare an activity log of daily behaviours as reported by parents/caregivers in a group of children with developmental disabilities and autism spectrum disorders.
2) To explore any trends in the profile of daily activity log of children with developmental disabilities and autism spectrum disorders in relation to associated variables like type of disability, age, sex, type of family, family size and school exposure.

Methodology of the study:
The study was undertaken on a sample of 140 preschool children diagnosed as cases with one of the "developmental disabilities" including "autism spectrum disorders". A semi-structured "Interview Schedule" and "Daily Activity Log Schedule" specially designed for the purpose of data collection. The collected data were compiled and computed for descriptive and interpretative statistical inferences by using SPSS/PC version 3.0.

Major findings of the study:
The results of the study shows that the greatest part of a day's schedule is spent by this sample of children on 'sleeping' followed by time spent at 'school', 'feeding' activities and 'watching television' respectively. The amount of time per day spent on needed-constructive activities like 'home teaching' or 'playing with peers' is meager. Those who are not exposed to any school experience face a double disadvantage. They spend thrice the time on sedentary or exclusion activities like 'watching television' or 'playing alone'. Additionally, they also lose out time in their typical day's schedule for 'playing with peers' and 'home teaching'. These differences invite attention to the need for revamping the daily activities of children with ASD.

Skinener, Buysse and Bailey (2004) conducted a research on the problem titled, "Effects of age and developmental status of partners on play of pre-schoolers with disabilities."

The main objective of the study was to examine how total duration of social play pre-school children with disabilities varied as a function of both chronological and developmental age of their social partners.

Methodology of the study:
Fifty five children (33-60 months old) with mild to moderate developmental delays were selected as the sample (participants) for the study and their dyadic play situations were observed with four different partners.

The major findings of the study:

1) The influence of partner's developmental age on social play was different depending on the developmental age of the focal child.
2) There was a positive relationship between developmental ages of the children and the total duration of associative play.
3) The impact of partner's developmental age was contingent upon the developmental level of the focal child.

Refferty, Piscitelli and Boettcher (2003) conducted a study on "The impact of inclusion on language development and social acceptance among pre-schoolers with disabilities."

The main objective of the study was to examine the developmental progress of pre-schoolers with disabilities in inclusive and segregated classes focusing on language ability (auditory comprehension and expressive language) and social acceptance (social skills and problem behaviours).

Methodology of the study:
The sample consisted of 96 pre-schoolers with disabilities attending a community based pre-school programme in New York State.

Major findings of the study:
The results of the study indicated that post-test scores were comparable in both setting (inclusive as well as segregated) for children with "not severe" disabilities and children with "severe" disabilities. Children with severe disabilities in inclusive classes had higher post-test scores in language development and social skills than their peers in segregated classes, but problem behaviours were lower for children in segregated classes.

Mathur, Mathur, Singh, Kushwaha and Lele (1995) made an investigation on "Detection and prevention of childhood disability with the help of Anganwadi Workers."

The main objective of the investigation was to evaluate the role of Anganwadi workers (AWWs) for detection and prevention of disability in children below 6 years of age.

Methodology of the study:
This study was conducted in an ICDS urban project, Gorakhpur in randomly selected ten Anganwadi Centres. Anganwadi workers (AWW) were given inservice orientation and training to detect various types of disabilities in children below 6 years, four hours per day for six days.

The major findings of the study:

1) Out of total 1545 children, AWWs identified disability in 126 which were verified in 118 cases by pediatricians.
2) The disability rate was 7638 per 100,000 populations.
3) Visual, mental, orthopedic, speech and hearing disabilities rates were- 4790, 2654, 583, 518 and 453 per 100,000 population, respectively.
4) In the repeat survey, 35 of the 74 children with visual disability (mostly xerophthalmia), 4 of the 9 with orthopedic disability and 3 of the 7 with hearing disability could be managed satisfactorily.

Bhandari, Mathur and Parmar (1989) conducted a study on the topic titled, "Role of Anganwadi workers in early detection, prevention and treatment of childhood disabilities."

The main objective of the study was to assess the efficacy of AWWs in early detection and prevention of childhood disabilities

Methodology of the study:
The study was conducted in an ICDS project in Rajasthan. AWWs of the centres covering a population of 1,000 were selected for the study. They were trained for a few days in identifying handicapped children. After the training, a door-to-door survey was conducted by AWWs and all the children in the age group 0-14 years suffering from any form of handicap were identified. These children were further verified by doctors and supervisors of the project area.

The major findings of the study:

1) It was found that there were total 130 children having one form of impairment or the other, which included visual impairment (42.3%), hearing and speech impairment (24.6%), locomotor disability (19.2%), mental retardation (2.3%) and other impairment (10.7%).
2) The AWWs were able to identify 65.4% of the above mentioned children with impairment with proper training.
3) Necessary advice was given regarding treatment, prevention and rehabilitation of children suffering from various types of handicaps at the community level.

Kamalam (1989) conducted a study on the problem entitled "Training the Anganwadi workers in timely detection of disabilities in children."

The main objectives of the study:

1) To enable the Anganwadi workers to develop comprehension regarding various disabilities during childhood.
2) To train Anganwadi workers to acquire the skills to identify/detect disabilities in children.
3) To help Anganwadi workers to understand the modalities of referral services for the disabled and undertake the task after detection.

Methodology of the study:
The sample comprised 93 Anganwadi workers, selected through purposive sampling method, and the tools used were questionnaire, screening schedules for detection of the disabilities, and a screening kit for identifying disabilities in children. Mean, percentage, SD, and 't' test were used in treating the data.

The major findings of the study:

1) Greater awareness of the types of disabilities was observed among the Anganwadi Workers (AWWs) after the training as compared to the pre-training phase.
2) Significant difference was found in the knowledge of AWWs regarding the developmental milestones after the training.

3) Significant difference was found between the initial and final awareness among the AWWs about the role of families in helping the disabled as a large number of AWWs were able to think rationally and realistically after they completed the training.
4) A sizeable number of AWWs became aware of the preventive measures against disabilities, such as avoiding early marriages, exposure to X-ray during pregnancy, late pregnancy and maintaining hygienic environment after they attended the training.
5) Most of the AWWs of the study were better able to conceptualize the management and rehabilitation services for the disabled, after they underwent the training.
6) A substantial number of AWWs became knowledgeable about integrated education, reservation in employment and provision of loans for the disabled.
7) 86% AWWs were able to comprehend well the characteristics and detection/identification of disabilities; the guidance to be given to parents to accept their disabled child; management of the disabled children at home; integration of the disabled in the society; referral services etc.
8) Most of the AWWs were able to pinpoint the causes of various disabilities and identify disabilities by the symptoms and characteristics as a result of the training.
9) Parents' lack of interest to rehabilitate the disabled and the lack of rehabilitation centers nearby for referral services were the difficulties encountered in offering a helping hand to the disabled.

Kohli (1988) conducted a study on the problem entitled "Impact of home-centre-based training programme to reduce developmental deficits of disadvantaged young children under ICDS scheme in Chandigarh."

The main objectives of the study:

1) To adapt the 'portage material' and develop a portage package for the use of professionals, para-professionals and non-professionals involved in one way or the other with pre-school education, particularly with mentally retarded (MR) or developmentally delayed (DD) children.
2) To develop a low-cost affordable client-centered portage training model to enhance the development of the young children belonging to ICDS centers in the urban slums of Chandigarh.
3) To train a group of Anganwadi functionaries and parents as therapeutic teachers for implementing portage training on a long term basis.

The major findings of the study:

1) Portage training was effective.
2) Longer duration of training had better impact, but with diminishing returns.

3) The degree of developmental deficits had insignificant impact on acquisition of skills and individual developmental quotient (DQ) gain scores.
4) The professionals, para-professionals and non-professionals were almost equally effective in imparting training to the children.
5) There was a positive relationship between various behavioural skills and various DQs.
6) There was a positive change in the attitude of mothers towards their children and portage training package.

Azad (1986) conducted a study on the problem titled, "Effectiveness of portage home-based training programme on cognitive development of pre-school mentally retarded children."

The main objectives of the study:

1) To adapt the portage home-based model for pre-school mentally retarded children with cognitive handicaps.
2) To individualize the portage home-based training programme for pre-school mentally retarded children in accordance with their specific cognitive handicaps.
3) To involve parents as effective home teachers for teaching the relevant cognitive skills to their pre-school mentally retarded children.
4) To evaluate the effectiveness of portage home-based training programme on the cognitive development of pre-school mentally retarded children.
5) To change the unfavourable attitude of parents towards their mentally retarded children.

The major findings of the study:

1) The findings reveal that children benefited considerably from the programme as manifested by their improved cognitive skills.
2) The attitude of parents towards their children also improved.
3) There was significant difference between mean gain Development Quotient (DQ1) scores of the subjects from T1 to T2, T2 to T3 and T1 to T3.
4) There was a significant difference in gain scores of the subjects from T1 to T2, T2 to T3 and T1 to T3 stages.

Dutta (1986) conducted an experimental study on the topic titled, "Effect of different portage training intervention models on motor development of pre-school mentally retarded children."

The main objectives of the study:

1) To adapt the existing portage guide to early education (check-list items of motor development area) by Bluma et al. (1972).
2) To find out the effect of portage training for pre-school mentally retarded children on their specific motor handicaps.

3) To study the effectiveness of different portage models for imparting portage training.
4) To study the socio-economic status of parents in determining gain of children due to portage training.
5) To study the attitude of parents towards their mentally retarded children between pre-training and post-training scores.

The major findings of the study:

1) Portage training was provided only on motor development area but each child gained check-list items of other four developmental areas viz., social, language, cognitive developmental and self-help skills.
2) The teachers gave a larger number of prompts than parents to train their mentally retarded children.
3) A larger number of hours were spent by teachers with mentally retarded children to train them than their parents did.
4) Mentally retarded children who were trained by teachers gained higher developmental quotient scores as compared to those who were trained by their parents.
5) Mentally retarded children of low socio-economic group scored as high as those of high socio-economic group due to portage training.
6) As a result of portage training, parent's attitude towards child rearing, mental retardation and management of mental retardation considerably changed.

Pandey (1985) made an investigation on the problem titled, "A study of affectional deprivation, ego-strength and adjustment pattern among visually handicapped children and their rehabilitation."

The purpose of the study was to make a psychological study of affectional deprivation, ego-strength and adjustment among visually handicapped children and their rehabilitation.

The major findings of the study:

1) The deprivation as felt by rural blind children was significantly more acute than felt by urban blind children.
2) There was no significant difference in the pattern of affectional deprivation between congenitally blind children and post-natal blind children.
3) It was found that 10 blind children had poor ego-strength and poor adjustment, emotionally they appeared immature and hence there was need for their rehabilitation.

Mathur, Gupta, Mathur, Singh and Mishra (1983) conducted a study on the problem entitled "Role of Anganwadi workers in identification of handicapped children and youth in the community."

The main objectives of the study:

1) To identify and rehabilitate handicapped children and youth with the help of AWWs.
2) To find out the problems associated with rehabilitation.

Methodology of the study:

The study was conducted in the urban slums of ICDS project of Gorakhpur city (UP). Twenty (20) AWCs covering a population of 20,659 were randomly selected for the study. The population below 20 years was 9,762 of whom 5,066 were males and 4,696 were females. A household survey was done by AWWs to know the socio-economic status of parents. AWWs were given in-service training to identify various types of handicapped children and youth using a pre-tested proforma. These children were further examined by a team of doctors to find out the etiology of handicap and the attitude of parents towards it. Doctors advised parents regarding the rehabilitation of children and some children were referred to various schools and centres with the help of AWWs.

Major findings of the study:

1) Total 86 (0.9%) children and youth were identified as handicapped out of whom 53 were males and 33 were females.
2) The maximum number (38) of handicapped children were in the age group of 6-11 years followed by the 0-6 years (27) and the least number of handicapped children (18) were in the age group 11-15 years.
3) The different types of handicaps prevalent among the children and youth were visual (10), speech (27), hearing (22), orthopedic and neurologic (27), mental (16) and visceral (3).
4) Total 69 (80.2%) children and youth had single handicap while 17 (19.8%) had multiple handicaps and 53 (62.6%) children and youth were found handicapped due to acquired causes.
5) Out of the total number of children only 11(40.7%) children and youth were found to be mute with speech defects, where stammering and stuttering were the most common speech defects.
6) The major causes of blindness were vitamin-A deficiency (30%) and neglected eye infections (30%) and that of orthopedic handicap were post-polio paralysis, cerebral palsy, post encephalitic complications, pseudo muscular dystrophy, etc.
7) It was seen that most of the parents were aware about the handicap of their child and its consequences, and also aware of the existence of special schools for handicapped children, but due to their poor socio-economic status they were not ready to send them to these schools.
8) It was also found that some parents were tensed regarding their handicapped girl child because her disability is a bar for marriage, whereas parents accepted this disability as their fate. A few parents felt that the handicap could have been prevented if they consulted the doctor earlier.

NIPCCD (1982) conducted an experimental study on the problem entitled "Prevention and early detection of childhood disabilities: Role of Anganwadi workers."

The main objectives of the study:

1) To assess the capabilities of AWWs in undertaking the responsibility of prevention, early detection, referral and parent education regarding major childhood disabilities.
2) To field test the feasibility of including prevention, early detection and timely intervention to manage childhood disabilities which found only a passing reference in the training of ICDS functionaries earlier.

Methodology of the study:

The study was undertaken by NIPCCD in collaboration with NIMHANS and NIVH, in the form of three experimental designs and each programme had two phases. In the first phase, AWWs were given short orientation about the causes and symptoms of disabilities, and in the second phase the disabled cases identified by AWWs were cross-examined by experts. The sample of the study comprised 22 AWWs, 8 ANMs, 4 LHVs, 2 Supervisors, 1 Gramsevika and 1 CDPO.

The major findings of the study:

1) The various disabilities identified by AWWs in all the three experiments were the mental retardation (60) and their correctness of diagnosis was 70%; visual impairments (38), orthopedic handicaps (92), hearing impairments (60), and speech problems (82) and their correctness diagnosis were 100%.
2) In the first experiment six parents reported that AWWs taught them a few exercises that could be done by their mentally retarded children and they felt that the children had shown considerable improvement after doing the exercises.
3) In the second experiment, all the cases brought by AWWs had one or the other kind of visual impairment. However, in many cases it was not possible for them to specify the exact nature of the problem.
4) In the third experiment, all the specialists felt that AWWs could identify most of the cases correctly even though they could not give specific medical terminology for the problems. The detection of visual and hearing impairments and mental retardation was commendable as the symptoms of these disabilities were not very obvious.

2.3.0 Studies Conducted on Rehabilitation of Special Group Children at School Level

Jain, Pasrija and Bansal (2014) conducted an experimental study on the topic entitled "Effect of individualized educational programme on functional skills among intellectually challenged children."

The main objectives of the study:

1) To assess and compare functional skills (personal, social, academic and occupational skills) among intellectually challenged children before experimental treatment.
2) To develop and implement individualized educational programme for each one of the intellectually challenged child of experimental group.
3) To asses and compare functional skills among intellectually challenged children after experimental treatment in terms of mean gain scores of functional skills.

Methodology of the study:

The sample of the study comprised of 100 intellectually challenged children (50 children in control group and 50 children in experimental group) having IQ 35- 50. This study used pre-test post-test control group design.

The major finding of the study:

1) No significant difference was found in the mean scores of functional skills (personal, social academic and occupational skills) in intellectually challenged children of experimental group and control group at the pre-test stage.
2) The mean scores of functional skills (personal, social academic and occupational skills) in the subjects of experimental group was found significantly higher than the subjects of control group at the post-test stage.
3) It indicated that the children of experimental group have improved their functional skills (personal, social, academic and occupational skills) after getting training as compared to those of control group.

Berwal and Gahlawat (2013) conducted a study on the topic titled, "Effect of yoga on self-concept and emotional maturity of visually challenged students: An experimental study."

The main objective of the study was to examine whether the practice of yoga has a positive effect on self-concept and emotional maturity of visually impaired students.

Methodology of the study:

The sample of the study consisted of 15 visually impaired students selected purposively from a school for the blind. A yoga training programme was designed and the subjects were exposed to it for a period of four weeks. The effects of yoga on self-concept of visually impaired students were measured by administering Saraswat's Self-Concept Inventory whereas effects on emotional maturity were obtained by applying Yashvir Singh and Mahesh Bhargava's Emotional Maturity Scale. The data were analyzed in terms of mean, SD and 't' test.

Major findings of the study:

The results of the study indicated that on the whole, the level of self-concept and emotional maturity of visually impaired students improves after the practice of yoga.

Significant differences were found between mean gain scores on all the dimensions of Self-Concept Inventory and Emotional Maturity Scale

Alom (2011) conducted a study on "Practice of learning mechanisms and their effect on learners' development in schools for special children of Assam."

The main objectives of the study:

1) To categorize the learners in schools for special children as par their characteristics and defects.
2) To study the nature of learning mechanisms used for learning and educating the different categories of special group learners.
3) To study the effect of learning mechanisms on learners' academic achievement.
4) To study the reaction of parents towards schools for special children.

Methodology of the study:
Following random sampling method, nine special schools were selected as the sample institution for the study. The participants of the study were school principals/headmasters/teachers and parents. The researcher personally visited all the sampling schools and collected data through self-developed tools (interview schedule, rating scale, information checklist etc.). Both qualitative as well as quantitative (Mean, Percentage, pie-digram etc.) data analysis approach were applied for analyzing and interpretating the collected data in order to reach valid conclusion.

The major findings of the study:

1) Total 662 special group students were found among the 9 schools of the study, where maximum number of students was found in the category of hearing impaired i.e., 221 and this is followed by 129 multiple disabled, 100 orthopedically handicapped, 87 mentally retarded children, 69 visual impaired children, 53 speech impaired children and only 3 learning disabled children.
2) Special learning materials like- flash card, different special aids and appliances (puzzle box, block design, pyramid ring, abacus etc.) different types of picture charts, models, therapy ball etc., were used for learning the different categories of special group children, which significantly improved the academic achievement of the learners.
3) Out of total 45 guardians, 31 guardians have expressed high attitude, 11 guardians expressed medium attitude and only 3 guardians expressed low attitude towards the schools for special children.

Mechling and Bishop (2011) conducted a study on "Assessment of computer-based preferences of students with profound multiple disabilities."

The major objectives of the study:

1) To identify student preferences for computer-based stimuli (individualized video programmes and commercially available cause-and-effect software) which were then used.
2) To compare student preferences for stimuli presented on a traditional computer-based system and a large interactive whiteboard screen.

Methodology of the study:
Three young boys with a diagnosis of profound multiple disabilities (PMD) were selected as the participants for the study. Each student was enrolled in the same elementary school classroom that served students with severe and profound disabilities. The study used an alternating treatments design and systematic assessment strategy to present stimuli sequentially and to measure student responses to the varying computer-based stimuli.

Major findings of the study:
1) It indicates that in addition to commercial products, interventionists may also wish to evaluate and use of individually created video-based programmes for students with PMD.
2) There is an alternative to traditional commercial software products and that some students may respond more positively to video recordings of persons familiar to them compared to commercial products.
3) It is found that the use of computer-based stimuli and video-based stimuli may be used in the development and implementation of educational programmes for students with PMD.

Leelavati, Vijayalakshmi, Stalina, Regan and Krishnan (2011) conducted an experimental study on the topic entitled "Effect of circle games on development of social skills among children with deaf-blindness."

The major objectives of the study:

1) To study the effect of circle games in development of social skills among children with deaf-blindness.
2) To compare the performance level in development of social skills among children with deaf-blindness.

Methodology of the study:
Following the purposive sampling method, 8 children were selected as the sample of the study. Out of 8 children, 4 children (N=4) constituted the experimental group and 4 children (N=4) constituted the control group. All the 8 children (6 boys and 2 girls) were within the age group of 9-15 years.

Major findings of the study:
1) There was a significant difference in post-mean scores of the experimental groups and control groups on development of social skills.

2) The intervention treatment has an impact on the development of social skills among students belonging to the experimental group.
3) It was revealed that development of social skills among children with deaf-blindness is more effective through circle games than conventional methods.
4) It was found that circle games were effective in the development of social skills in children across the age range of 9-15 years.

Shah (2011) conducted a study on "Standardization of a normative scale of language development for the children with mental retardation."

The major objectives of the study:

1) To develop a normative scale to measure the language development of mentally retarded children in terms of concepts developed in association of language.
2) To assess the pattern of language development among mild, moderate and severe levels of retardation.
3) To study whether the sequence of language development in mental retardation follows the same milestone of language development as followed by general child population (as per available research findings and test behaviour).
4) To study if the mentally retarded children can be classified on the basis of language score.

Methodology of the study:

Six special schools were selected by using random sampling method as the sample institution of the study. The participants of the study comprised 137 children, out of which 97 were boys and 40 were girls from six special schools. Both picture stimulus and items in interaction schedule were used to elicit the response. Data were collected by face-to-face interview by the researcher after securing special permission from the special schools.

The major findings of the study:

1) The language development scale measures the level of mental retardation with high reliability and validity.
2) The scores obtained in this language scale can be used to classify mental retardation with greater efficacy and accuracy.
3) There is increased anomaly in the sequence of language development with higher level of mental retardation.
4) Mentally retarded children communicate mostly in telegraphic speech with delayed reaction time.

Julka (2010) undertook an exploratory study of home-based-education practices for CWSN in SSA. The perceptions of teachers, educational administrators and satisfaction of parents towards home based practices were analyzed. The results of

the study indicated the lack of resources for home-based-education in four states in which the study was undertaken. It was also seen that there was no collaboration between the general education and home-based-education system. The study also revealed a strong need to connect home-based-education with regular education and to facilitate proper trained resource support for children under the home-based programme.

Kaur (2010) conducted a case study on the topic titled, "A study of implementation of inclusion of children with special needs in Delhi primary schools."

The major objectives of the study:

1) To identify schools with good practices of inclusion.
2) To investigate the perception, attitude of the elementary school principals and teachers towards inclusion of students with disability in the schools, the implementation strategies and practices of inclusion in schools and the role of principals in introducing change in schools.

Major findings of the study:

1) Emphasis the importance of implementing strategies and not 'dumping' students with disabilities into general education classes. Due care must be taken in establishing inclusion setting in resistant environment.
2) The primary school principals' perception about children with special needs was in part related to their attitude towards inclusion, and most of the principals showed favourable attitude towards inclusion.
3) Pre-service and in-service training programmes for principals' to address inclusion as part of their curriculum and the in-service training programmes conducted for the teachers proved very beneficial.
4) Curriculum requires flexibility, success-oriented means of assessment, examination and evaluation.

Reema (2010) investigated on "A study of relationship between self-concept and adjustment of visually impaired adolescents studying in inclusive and special schools."

The main objectives of this study:

1) To study the self-concept and the level of adjustment of visually impaired adolescents studying in inclusive and special schools.
2) To study the relationship between self-concept and the level of adjustment of visually impaired adolescents studying in two settings.
3) To compare the relationship between self-concept and the level of adjustment of visually impaired adolescents studying in inclusive and special schools.
4) To adapt/develop self-concept scale and adjustment scale for use with the visually impaired adolescents.

Methodology of the study:

Total 200 visually impaired adolescents studying in special and inclusive settings were selected as the sample of the study using the stratified random sampling procedure.

Major findings of the study:

1) The development of self-concept was better in inclusive schools, but it was even better in the case of male adolescents than the female ones.
2) In case of level of adjustment also the male adolescents have shown better level of adjustment.
3) The relationship between self-concept and level of adjustment in case of female adolescents was better in inclusive school settings than their male counterparts and this trend was reversed in case of relationship between those aspects in special schools.
4) Male visually impaired adolescents' students showed better self-concept and adjustment than the female visually impaired adolescents.

Rekha (2010) conducted a study on the topic entitled "Effect of Ron Devis approach and Eclectic approach on word fluency of dyslexic children."

The main objective of the study was to study the effect of Ron Devis approach and Eclectic approach on word fluency among primary school dyslexic children.

Methodology of the study:
The sample of the study consisted of 30 students of 3rd and 4th grades, which were selected from 10 English medium schools of Nawanshahr. Both qualitative and statistical data analysis techniques were used for the analysis and interpretation of collected data.

The major findings of the study:

1) It was found that both the Ron Devis approach and Eclectic approach were significantly superior to traditional approach for improving the word fluency of dyslexic children.
2) It was found that Ron Devis approach and Eclectic approach were not significantly different for improving the word fluency of dyslexic children.

Baruah, Sarkar and Hazarika (2009) conducted an investigation on "Impact of aids and appliances on educational performance of children with special needs."

The main objectives of the study:

1) To assess whether aids and appliances have facilitated the CWSN in their educational performance or not.
2) To know the impact of aids and appliances on enrolment and retention of CWSN in inclusive education system.
3) To know the quality of aids and appliances provided to CWSN.
4) To know the level of satisfaction of aids and appliances provided to CWSN.

Methodology of the study:
Study covered 25 educational blocks of three districts- Nagaon, Dhubri and Sonitpur. Nine children with special needs were selected from each block. The sample of the study comprised 222 children with special needs (CWSN). Data were collected through both primary and secondary sources. Academic records of CWSN were also collected. Primary data were collected from CWSN (222), resource teachers (32), volunteers (50), teachers (200), peer group of CWSN (225), and parents (225) through questionnaires and interviews. Simple descriptive statistics were used for analysis of the data.

Major findings of the study:

1) The children mainly used three types of aids and appliances: hearing aids (67), wheel chair (69), tricycle (79) and others (7) blind stick, crutch etc.
2) User's manual was not received with aids and appliance; parents were not given any training/demonstration for use of aids and appliances provided to their children.
3) Wheel chairs and tricycles were not appropriate in the village roads.
4) Hearing aids too need to be properly adjusted.
5) Some instances of provision of unnecessary aids and appliances to CWSN were also reported.

Choudhury, Pranab and Bharali (2008) conducted a study on the topic titled, "Impact of IED intervention in the areas with full resource support and partial resource support provided from SSA- A comparative analysis."

The main objectives of the study:

1) To find out the actual use of aids and appliances by children with special needs and their benefits to them.
2) To find out the impact of IED interventions on the parents and teachers in handling the CWSN and community awareness.
3) To evaluate the effectiveness of existing resources and to ascertain the areas for their strengthening.
4) To make a comparative analysis between the areas with full resource support and with partial resource support provided by SSA.
5) To identify the problem areas and suggest suitable modifications in interventions.

Methodology of the study:
Five districts of Assam viz. Kokrajhar, Nalbari, Kamrup, Tinsukia and Hailakandi were covered for the study. Stratified random sampling method was used for selecting sample for the study. The participants of the study were CWSN, their parents, resource teachers, volunteers. Data collection was done through observation (both participant and non-participant), interview and socio metric techniques.

Major findings of the study:

1) The resource teachers (RTs) and volunteers provided home-based education and counseled parents**.**
2) Around 50% of parents felt that their CWSN were treated like other children.
3) Respondents expressed satisfaction with resource support in areas with full resource support (40%) under SSA and with partial resource support (38%) under SSA.
4) Majority of the children were not satisfied with the aids and appliances supplied to them.

Das (2007) conducted a study on the topic titled, "Evaluation of the impact of IED intervention with focus on enrolment and retention in the school."

The objectives of the study:

1) To examine the enrolment status and retention level of children with special needs (CWSN).
2) To find out the level of awareness and attitude of teachers and common people towards CWSN.
3) To find out the causes of drop out of CWSN.

Methodology of the study:

The study was conducted in 53 schools from the 5 districts of Assam. The participants of the study were headmasters, teachers and parents. Data were gathered from both primary and secondary sources. Qualitative as well as quantitative data analysis techniques were used for analyzing and interpretating the collected data in order to reach a valid conclusion.

Major findings of the study:

1) Over the last three years there has been improvement in identification of CWSN (57.6%). Out of the total CWSN identified, two third (68.4%) were enrolled in the schools in 2006-07 and retention level of CWSN was high (99.4%).
2) Insufficient infrastructure (27.6%), level of disability of CWSN (20.4%) and lack of parent's cooperation (9.3%) were some of the major problems faced in implementation of IED intervention in Assam.
3) Parents (52.7%) stated that IED intervention has improved their children to some extent.
4) Some parents (39.5%) stated that it had a positive impact on their children with special needs, but very few (7.7%) felt that intervention had any great impact on the personality and behaviour of CWSN.

Singh (2007) conducted an investigation on the problem titled, "A study of elementary schools of Delhi, India from an equity and access perspective of students with disabilities."

The main objective of the study was to study the prevalent policies and practices of the schools from the perspective of key stakeholders- students with disabilities, teachers, principals, parents, siblings and peers.

Methodology of the study:
The study covered 106 students with disabilities enrolled in classes IV-VIII of 10 government and 10 private schools, who were interviewed along with 75 teachers, 77 parents and caretakers, 16 siblings and 20 principals. Five self-developed interview schedules were used to get information regarding prevailing attitudes and practices regarding students with disabilities and awareness regarding government policies as well as their implementation on the ground. In order to gain insight into prevailing social relationships with peers, sociometric technique was applied in the seventy five classes that the students with disabilities were studying.

Major findings of the study:

1) Majority of the students with disabilities did not face stigmatization due to their disability and many of them had positive social relationships due to positive attitudes prevailing in the schools.
2) The academic performance of the students presented a challenging trend, with six students in government and fifteen students in private schools remaining in the same class. This was reflective of the abysmal pedagogical practices in seventeen of the twenty schools chosen for the study, and the complete absence of accommodations for students with disabilities.
3) Policy implementation of scheme of Integrated Education for Disabled Children (IEDC) was found to be totally ineffective with only 3.2% government school children accessing the scheme.
4) Schools in Delhi were far from being 'inclusive' at best they seemed to be at the phase of 'integration', where students with disabilities were enrolled but remained on the margins like many other excluded peers, and three themes emerged from this study as the basis of providing road map for 'inclusive schools'- creating access through differentiation tasks, building culture in order to create an enabling environment and supporting practices for responding to student diversity.

Chudasama, Jadeja and Meheta (2006) conducted a study on "Impact of integrated education for disabled children– IEDC scheme under SSA."

The objectives of the study:

1) To ascertain the impact of integrated education for disabled children (IEDC) scheme under SSA programme.
2) To identify its actual effect on the disabled children.
3) To find out the usefulness of this scheme.

Methodology of the study:

The study covered five districts -Kutch, Surat, Dahod, Amreli and Gandhinagar. Survey was conducted in five blocks of each district except Gandhinagar where only four blocks were selected. Data were collected from BRCCs and head-teachers through questionnaire and interviews. Data were analysed using simple descriptive statistics and Chi square test.

Major findings of the study:

1) BRCCs (50%) stated that the training had been provided and trainees were sufficiently acquainted with the information on disabilities.
2) Head-teachers (77.4%) viewed that the teachers were familiar with the information regarding disability and had sufficient information about the special care to be taken of disabled children.
3) Teachers communicated with the guardians of the disabled children (91.9%) and found one guardian of disabled child as a member of the VEC in many cases.
4) Guardians (59.7%) were familiar with the 'equipment-kit' provided to disabled children.
5) Facility of ramp existed in the schools; medical camps were arranged to identify disabled children.
6) Disabled children were given certificates (61.3%).
7) Schools had no facilities for transporting the disabled children.
8) Special programmes were not arranged in the school for the disabled children.
9) Facility of resource room was not available at block level.
10) All the head-teachers reported that IEDC material for bringing community awareness about the disability had not been received.
11) Generally VEC meetings or camps were held for distribution of equipment kit, certificates were issued to increase community awareness during celebration of flag day (independence day, republic day etc.), world disabled day and organization of competitions like elocution, drawing etc.

Venkatesh (2006) conducted a study on the problem entitled "An evaluation of the schemes and programmes of inclusive education of the disabled children in Karnataka."

The main objectives of the study:

1) To assess the impact of inclusive education of disabled in Karnataka.
2) To study the improvement in the quality of education of the children with special needs in Karnataka.
3) To find out the facilities available for the education of the children with special needs and to make suggestions for improvement.
4) To identify the problems in planning and organizing the medical camps for identifying the severity of disability.

Methodology of the study:

The sample selected for the study were the SSA District Project Officers, BEOs, DIET Principals, Resource Centre Coordinators, NGOs working for the children with special needs and IED Trained teachers from the various districts of Karnataka. Data were collected through personal visits to the centers and departmental offices to collect documentation and to conduct openended interviews of officials and teachers, by participatory observation at the time of training programmes, medical camps and visits to schools. The data were analyzed through qualitative analysis of description on the findings and extensive presentation of the data sheets and records.

The major findings of the study:

1) The investigator has listed the different programmes organized for the education of children with special needs, which include identification of such children through home-to-home enumeration work, scholarships, medical assistance and medical camps, training of teachers as IED teachers and awareness programmes to the classroom teachers, parents and the public.
2) The facilities included physical infrastructures and equipments, district level planning, budgeting and conducting of programmes for different categories of persons involved in service of children with special needs.

Julka (2005) conducted a study on the topic titled, "A study of programme and practices for education of children with special education needs in different states."

The objectives of the study:

1) To investigate the existing provisions and practices on special needs education.
2) To understand the rationale behind the existing arrangements.
3) To analyze the data in relation to targets and goals set at the national level and external criteria established by researches on special needs education, and
4) To examine the data on special needs education in different states.

Methodology of the study:

The study was conducted in 10 states – Andhra Pradesh, Delhi, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Sikkim, Uttrakhand and Uttar Pradesh. A survey was carried out in 10 states, out of these 5 were above average national literacy level (Delhi, Karnataka. Maharashtra, Sikkim, Uttarakhand) and 5 were below average national literacy level (Andhra Pradesh, Madhya Pradesh, Orissa, Rajasthan, and Uttar Pradesh). Data on existing provisions and practices/ approaches to special needs education were collected from secondary sources as well as primary sources through questionnaires and interviews. The collected data were analyzed keeping in view the targets and goals set at the national level.

Major findings of the study:

1) There were a number of diverse but effective practices in the states for the education of children with disabilities. However, nearly half of the population of CWSN was still not enrolled in any school.
2) There were a number of obstacles faced by the local governments in educating children with disabilities in mainstream schools.
3) The use of categorization for providing services was prevalent in all the states under study, and
4) Inventive approaches were used by the state level practitioners in mobilizing support from all possible sources. There is a need for capacity building at all levels and managing attitudinal barriers for facilitating inclusive education.

Pushpa (2005a) conducted a study on the topic titled, "An investigation into the problems of education of the mentally challenged children of Mysore District."

The major objectives of the study:

1) To identify the problems of the mentally challenged in general and their level of retardation in terms of different aspects of education and the extent to which the educational needs of the mentally challenged have been met.
2) To ascertain the educational standards and conditions that exist in the schools for special education and the facilities provided to cater the needs of the mentally challenged.
3) To find out the effect of qualification and teaching experience of teachers on developing learning ability in the mentally challenged children and to ascertain the difficulties of securing their attention in completing the instructional and other courses.
4) To identify the attitude of parents towards their mentally challenged children and the problems faced by them in developing the competencies of personal adequacy, scholastic and social adjustment.

Methodology of the study:

Following random sampling approach eight institutes for the mentally challenged children were selected for the study. The participants of the study were 43 teachers and 60 parents. Self-prepared Rating Scale for Teachers (related to aspects like learning abilities, health, safety and personal habits, family and civic skills, interaction skills, sensory training, language skills, pro-computational skills, natural science skills, personal adjustment skills, recreational and physical activities) and Parents (related to self help skills, adjustment and disciplinary matters) were used as the tool of data collection. Both qualitative as well as quantitative/statistical techniques such as Mean, Percentage, Standard Deviation, t-test, ANOVA and Correlation Test were used for the analysis and interpretation of data.

Major findings of the study:

1) Most of the schools for the mentally retarded children were unaided institutions with no grant-in-aid facility from the government. But care had

been taken to have sufficient infrastructure like building; there have been insufficiency of classrooms, ventilation, learning materials, trained teachers, playground and transportation facility.

2) No significant difference was found between education of the parents and coping with the problems of mentally challenged children; parents even provide a positive correlation between the problems of such children and coping abilities in terms of self-help skills, adjustment and disciplinary matters.
3) Significant difference was found between the qualification of the teachers and learners in terms of factors like learning ability, pre-computational skills, interaction skills, social skills and language development skills which again were found to be interrelated.

Pushpa (2005b) conducted a study entitled "A study on the programme on the facilities provided for the integration of physically challenged children in normal schools in Hubli-Dharwad Taluk."

The main objectives of the study:

1) To study the objectives and the provisions under the project of integration of specially challenged children in normal schools and to make an assessment of such schools.
2) To find out the effectiveness of the project and its objectives, its implications and the level of success in implementation.
3) To find out the attitude of teachers, heads of schools and resource persons on integrating the specially challenged children in normal schools and the problems faced by them in carrying out the project.
4) To assess the facilities provided and available, the efforts and strategies used by the schools chosen for the project.
5) To make a study of the awareness of the parents and guardians of children on integrating specially challenged children in normal schools.

Methodology of the study:

The study was undertaken in the government schools under the jurisdiction of Hubli-Dharwad Taluks. The sample consisted of 80 government schools in Hubli-Dharwad Taluk selected using random sampling approach. The participants of the study were the head-teacher, teachers, guardians of children and resource teachers. Four questionnaires (one for head teacher, one for teachers, one for parents and one for resource teachers) were used for the collection of data. The collected data were analyzed through statistical techniques like Mean, Percentage, Standard Deviation and 't' test.

Major findings of the study:

1) The heads of schools were found to be supportive of the resource teachers in adjustment of time table, admission of disabled children and organizing

activities for them. Besides, most of the schools were found to be carrying out the personal study programme, revision and examination for such children and more than 60% of schools were providing study materials and financial assistance to such children.

2) The heads of schools within five years of experience were found to be provided greater encouragement and support to the resource teachers and the classroom teachers whereas heads of schools with more than twelve years experience were enlisting support and assistance from the community and local bodies for the implementation of the project.
3) About 43% of schools had not implemented the project and the children with special needs were not admitted.
4) As expressed by 94% of resource teachers, the heads of schools were extending very good support and encouragement for the project and more than 86% of classroom teachers have been extending their total support.
5) It was discovered that most of the resource teachers had only basic training and did not have diploma or degree certificates. No significant difference was found in the performance of the teachers based on their eligibility and training.
6) It was found that resource teachers with more than five years of experience as well as teachers from urban location possessed better sense of responsibility and better support from the guardians than the rest of the categories. The male teachers were found to show a better sense of work responsibility and support than the female teachers.
7) As per the opinion of teachers, about 94% of guardians of children were extending support and providing suggestions on the integration project in schools. However, about 45% guardians had no awareness on integration of children with special needs in normal schools as they had not participated in school extension programmes to the community. At the same time the parents of special needs children did not find the burden of educating these children less than that for the normal children.

Santhanam (2005) conducted a study on "Remedial programmes for children with learning difficulties."

The main objectives of the study:

1. To measure the level of intellectual development of the children with learning difficulties.
2. To provide psycho-educational intervention programmes to the children with learning difficulties in order to enhance their academic performance.
3. To assess the progress in learning of children with learning disability.

Methodology of the study:

The study was conducted in districts Thiruvallore, Villupuram and Kanchipuram. Data were collected through Assessment tests– Formal Assessment, General Intelligence and Aptitude Tests, General Achievement Test and Personality Test.

The major findings of the study were:

1. The intellectual capacity of the children with learning ability was significantly higher than those with learning disability.
2. Children with learning disability showed better academic performance after remedial programmes.

Seetharam (2005) conducted a research on "A study on the social integration of children with mild and moderate disabilities in mainstream classrooms under Sarva Shiksha Abhiyan, Tamil Nadu."

The major objectives of the study:

1. To find out the peer group affiliation of mainstream school students towards their disabled classmates.
2. To find out the differences in peer behavioural assessment between disabled students who are accepted and isolated by their classmates.
3. To explore the perception of the class teacher on the academic and social behaviour of the disabled students.
4. To estimate the availability and extent of use of various aids and facilities for disabled students.

Methodology of the study:
Data were collected from disabled students through Peer Group affiliation scale developed by Bronfenbrenner, 1945; Peer Behavioral Assessment scale modified version of Coie, et al 1982; and from teachers using Teacher rating scale. Simple descriptive statistics were used to analyse the data.

Major findings of the study:

1. Psycho-physical developmental stages were significantly related to peer group affiliation and academic performance, and pre-adolescents have performed better than adolescents.
2. Family status, annual income, social community status and categories of disability have significant effect on the peer group affiliation, peer assessed behavioural characteristics and academic performance.
3. Socio-metric status of the disabled students had significant effect on academic performance and all the components of peer behavioural assessment.

Soni (2005) conducted a study on "Interventions for education of children with disabilities."

The major objectives of the study:

1. To ascertain coverage of children with special needs.

2. To find out provision of educational and other facilities to them.
3. To study classroom strategies in inclusive classrooms.
4. To identify the effectiveness of teacher training in dealing with children with disabilities.
5. To verify removal of architectural barriers in school buildings.
6. To find out utilization of amount sanctioned for disabled children under SSA.

Methodology of the study:

The study was undertaken in Himachal Pradesh, Madhya Pradesh, Meghalaya and Mizoram. The normative survey design was used in the study. Purposive sampling approah was used to select the districts, schools and respondents. The study covered Chamba and Sirmour districts of HP; Umaria and Shahdol districts of MP; West Khasi Hills and South Garo Hills districts of Meghalaya, and Aizawl and Kolasib districts of Mizoram. Data were collected through observation and interview techniques from the BRC, CRC functionaries along with head teachers and teachers. The collected data were analysed and interpreted using simple descriptive statistics.

Major findings of the study:

1. The facilities for education of children with disabilities were in the initial stages in Himachal Pradesh and Madhya Pradesh and non-existent in Meghalaya and Mizoram.
2. No special teacher was appointed to help the children with disabilities in any of the states.
3. In all the four states some general teachers had been given orientation in the area of inclusive education; the teaching-learning strategies used in the classroom did not meet the specific needs of different categories of disabled children.
4. Reading materials for visually impaired children were not available in schools of the four states.
5. Aids and appliances for education of different categories of disabled children were not found in all the schools.
6. The grant of Rs.1200/- per disabled child was not reaching the beneficiaries, although the authorities claimed so.

Verma (2005) conducted a study on the topic titled, "Innovative teaching strategies for promoting inclusive education."

The main objectives of the study:

1. To acquaint the teacher educators/teachers with the new approach of special needs education.
2. To prepare the general teacher educators/teachers to address the special needs of children in the classroom.
3. To develop a list of successful teaching strategies to address individual needs.

4. To bring out a handbook for effective teaching strategies to meet individual needs of children in the classroom.

Methodology of the study:
The study was undertaken in nine different states viz. Rajasthan, Maharashtra, Delhi, Orissa, Uttar Pradesh, Goa, Uttarakhand, Himachal Pradesh and Mizoram. The study adopted experimental vs control group design. Two groups of teachers were selected. Teachers from experimental group were trained in teaching strategies (peer tutoring, child to child approach and cooperative learning) found to be successful teaching strategies under Project Integrated Education of the Disabled (PIED). Teachers used these teaching strategies in the classroom for one academic session. Performance of children from both the groups was compared to see the impact of innovative teaching strategies.

Major findings of the study:

1. Teachers of experimental group had initial reservations about the use of cooperative teaching strategies. Later they realized that this, in fact reduced their work load with children in the class with peer group or older children sharing their task in the school.
2. Parents and members of the community involved in the project also provided support in implementing cooperative teaching strategies. They found their children were learning better, got more involved in their work and worked cooperatively with their peers.
3. Use of cooperative teaching strategies led to self-learning methods, made students responsible for their own learning as well as for the learning of their peers. Small group work made each child participate and enhance her/his self-confidence.
4. Peer tutoring was successful in language teaching.
5. A number of different methods and the combinations of these methods emerged as useful for meeting the individual needs of the disabled children.

Krishnamurthy (2004) conducted a study on "Impact of computer aided learning on children with specific learning disabilities."

The main objective of the study was to assess the effectiveness of computers in enhancing learning for children with learning disabilities.

Methodology of the study:
The sample comprised 1010 children from four selected schools. 70 children were identified as children with problems in learning. The electic approach to data collection involved formal and informal assessment of the children. Psychological testing of children was done to rule out mental retardation and psycho educational testing was done to rule out defects in IQ. Tools used for data collection included 'The Binet-Kamath Test of Intelligence' (Indian Adaptation) and various educational evaluations.

Major findings of the study:

1. A significant number of children (64%) showed great improvement in the area of reading. At the time of the baseline test, the children were seen to perform below grade level reading and when tested at the end line they were seen to demonstrate grade level reading abilities.
2. Most of the children (88.1%) showed improvement in 'social intelligence' which measures practical common sense understanding of everyday social situations and acceptance of conventional standards of behavior.
3. There was also significant improvement in 'visual motor coordination' (78.6%) that involved the sensory perception (visual), their interpretation in the brain along with the ability to voluntarily control muscles and relate them to manipulative skills of handling material.
4. Non-verbal reasoning (42.9%) was another area of improvement where children were seen to perceive and analyze patterns better and experience enhanced comprehension of abstract units non-verbally.
5. Most of the children showed improvement in visual motor coordination, social intelligence and non-verbal reasoning. Improvements were also seen in aspects of speed and expression, accuracy and clarity.

Sarivastava and Afiah (1992) conducted a study on "Learning disabilities among elementary school children: Influence of age, sex and religion."

The main objectives of the study:

1. To identify the learning disabled children.
2. To assess their disability in those aspects such as reading, writing, spelling, language and arithmetic.
3. To investigate the interaction among age, sex and religion with reference to learning disabilities among elementary school children.

The major findings of the study:

1. Age had a significant influence on disability in terms of reading, articulating, writing and spelling.
2. There was no significant difference between boys and girls in their disabilities on reading, arithmetic, language and spelling, but sex had a definite bearing on the writing disability of the learning disabled.
3. Religion did not differ significantly on reading, writing, articulation and spelling of the learning disabled.

Mandke (1991) conducted an experimental study on the problem titled, "Effect of single modality stimulation upon speech and language development of hard-of-hearing children."

The main objectives of the study:

1. To measure hearing loss of children.

2. To form a homogeneous group in the classroom with reference to hearing sensitivity along with chronological age.
3. To evolve a scale for measurement of language skills.
4. To investigate individual needs of the students and to plan an individualized programme of language development.

The major findings of the study:

1. On the test of nouns, children could identify all the ten items and they answered in the form of complete sentences.
2. Children developed the concept of singular and plural number, gender, usage of adjectives, verbs, prepositions, cases and storytelling.
3. It was found that there were significant differences in case of pre-test and post-test scores in both the experimental groups but not in the control group.
4. It was also found that the single-modality approach worked more effectively than the multisensory approach.
5. Children with profound hearing loss proved better candidates for speech-reading, but there were a few children with a good amount of residual hearing who exhibited poor candidature for amplification due to some psychological factors such as poor dynamic range, and persistent discharging ears. These children were considered for visual-modality stimulation.

Paranjape (1991) conducted a study on the topic titled, "A study of the effect of supplementary education programme for hearing impaired children on their language development and socialization, and the effect of parental education programme on their awareness of acceptance of their child's handicap."

The main objectives of the study:

1. To find out the hearing loss of deaf children as well as to study their socio-economic background.
2. To identify the problems of deaf children in their language development.
3. To evolve the supplementary education for the language development of deaf children.
4. To identify the problem of deaf children in respect of their socialization and to evolve a programme for supplementary education for socialization of the deaf children.
5. To identify the problem of the parents in accepting the handicap condition of their child and to evolve a programme for developing the awareness of the parents regarding the acceptance of handicap.

Major findings of the study:

1. As a result of supplementary educational programme, the children started speaking boldly, full sentences and express their feeling without hesitation.
2. During supplementary programme children developed a positive social behaviour such as answering, taking turns, volunteering for work etc., and in

most of the cases the rate of positive behaviour was doubled. This was an indication of good socialization of the children.

3. The children were expected to pick up some higher social behavioural traits, such as admiring the good work done by others, feeling free in the presence of strangers etc.
4. Parents could not give the exact nature of the defect of their child, but they knew about the degree of hearing loss of their children.
5. Parents showed positive attitude towards their children and became more free and open-minded in disclosing the facts regarding the consultations with different doctors or following other methods besides medical measures.
6. Parents realized the necessity of teaching the child to lip-read and developed right concepts in many respects.
7. Parents started keeping a record of the child's respective as well as expressive languages, all the parents started teaching their child and could detect the difficulties.
8. Parents become more attentive towards the problems of the child.

Mukhopadhyay and Sharma (1990) conducted a study on "Identifying teaching competencies specifically for integrated education of the disabled children."

The main objectives of the study:

1. To study the attitudes of teachers towards integration of disabled children.
2. To identify the general and specific competencies required for the integration of disabled children.
3. To infer implications for the teacher education programme.
4. To develop a tool for identification of teaching competencies for integration of visually disabled children.

The major findings of the study:

1. It was found that the teachers had a positive attitude towards equal educational opportunity for disabled children in integrated classrooms.
2. The male and female teachers did not differ in their perception of skills required for enhancing integration.
3. In terms of pattern of ranking of competencies for integration, there was unanimity in the perception of ranking of integrated schools.
4. More importance was given to competencies such as setting of social goal followed by teaching activities.
5. 'Competencies for evaluation' was given the third rank, and least importance was given to identification and placement.

Muruganandam (1990) conducted a study on the topic titled, "Development of teaching-learning strategies in teaching science for visually impaired children."

The main objectives of the study:

1. To prepare teaching-learning packages in science for teaching visually impaired children.
2. To compare the effectiveness of teaching with prepared packages on achievement over the traditional method of teaching.

The major findings of the study:

1. The visually impaired children learned more science concepts when they were taught through the specifically prepared teaching-learning materials.
2. The learning package on science teaching for visually impaired children was found effective.

Narayan (1990) conducted a study on the problem entitled "Comparison of the effectiveness of adult and peer models on the learning and skills in mentally retarded children."

The major objectives of the study:

1. To identify the EMR (IQ 51-75) and TMR (IQ 25-50) children between the ages of 10 and 14 attending the services at the NIMH, Secunderabad.
2. To develop a kit of performance skills to test the performance ability of the retarded children.
3. To compare the effectiveness of adult and peer models with a no-model condition in learning and retention of the performance skills.
4. To find out the extent of retention of the performance skills learnt by the EMR and TMR children through the adult and peer models.

The major findings of the study:

1. Peer modeling was significantly more effective than adult modeling in the learning of motor skills.
2. The performance of immediate recall was significantly better than delayed recall under all the modeling conditioning for both groups.
3. The interaction between levels of retardation and type of modeling revealed that the TMR children under peer modeling committed less number of errors than EMR children.
4. In the learning of perceptual skills, the EMR children committed significantly less errors than TMR children.
5. In learning communication skills, the EMR children committed less errors than the TMR children.
6. Among the modeling conditions, the peer model was significantly more effective than the other two, the adult model being better than the non-model condition.
7. There was significant interaction between the levels of retardation, types of modeling and the two learning conditions.

Mohite (1989) conducted an experimental study on the topic titled, "Developing and implementing a classroom instructional programme for children with learning difficulties."

The main objectives of the study:

1. To develop suitable screening devices, these would enable teachers with minimum qualifications to identify children with learning difficulties.
2. To develop a Teachers Rating Scale to identify children who have learning difficulties.
3. To develop a Graded Word Test (GWT) of spelling to identify spelling difficulties.
4. To develop a Criterion Referenced Test of Reading covering the major components of reading skills, oral reading, silent reading, listening comprehension, word recognition and hearing sounds in words.
5. To identify children with learning difficulties from standards I-IV of four municipal schools.
6. To develop a classroom instruction programme of reading and writing for children facing difficulty in learning.

The major findings of the study:

1. It was found that many children of the experimental group improved i.e., progressed to higher-level paragraph in post-test as compared to pre-test in oral reading.
2. On silent reading it was found that most of the children irrespective of being in the experimental or control group progressed to higher level paragraphs.
3. On listening comprehension, it was found that most of the children in the experimental group improved, except in standard IV where children regressed to lower level paragraph.
4. In graded word test, it was found that the pre-test score differences between experimental and control groups for all the standards were not significant, indicating that before the programme both the groups performed at the same level.

Banerjee (1988) conducted a study on "An investigation into the problems of adjustment of blind students reading in secondary schools of West Bengal."

The objectives of the study:

1. To identify the areas of adjustment problems of visually handicapped (VH) children.
2. To compare the visually handicapped children with visually normal (VN) adolescents studying in normal schools with regard to their adjustment in these areas.
3. To identify causes of lower adjustment of all adolescents in different areas.

Methodology of the study:

The sample comprised visually handicapped adolescents in the age group of 12-18 years from the rural and urban West Bengal schools i.e., state govt. schools, missionary schools and private schools. A self-developed Adjustment Inventory and a personal data sheet were used as the research tools.

The major findings of the study:

1. The distribution of two groups, VH and VN, according to the intensity of total adjustment was found to be significant.
2. It was found that the group of VH adolescents varies with age of onset of the handicap in their adjustment to the interacting environment.

Khader and Ramaa (1988) conducted a study on the problem titled, "Improving the Kannada reading performance of educable mentally retarded children."

The main objectives of the study:

1. To identify the educable mentally retarded (EMR) children from grades III and IV studying in Kannada primary schools located in Mysore city.
2. To assess the reading-readiness level of EMR children of 6 and more than of 6 years mental age, and to compare them with normal children of the same age group.
3. To identify whether the reading-readiness level of EMR children was related to their chronological age (CA), mental age (MA) and/or IQ.
4. To validate the effectiveness of the remedial reading programme developed for the dyslexics of Kannada language in improving the reading performance among EMR children.

The major findings of the study:

1. EMR children of 6-7 years of age were consistently low in total reading-readiness as well as its sub-components as compared to normal children of the same age.
2. The gap between the normal children and EMR children in reading-readiness as a whole and its sub-skills decreased at a little higher mental age.
3. The reading-readiness level of EMR children was independent of IQ and CA, but was dependent on their mental age to some extent.
4. Remedial reading programme was effective in improving the level of letter and word recognition, and reading comprehension in Kannada language among EMR children.

Sharma (1988) conducted a study on the problem entitled "Mainstreaming the visually handicapped."

The main objective of the study was to analyze and review the previous researches to study the intellectual, personal and other characteristics of visually handicapped.

Major findings of the study:

1. Loss of sight does not produce any special behaviour among the blind.

2. Maladjustment in society, family and especially in school and unsuitable school setting are the most prominent factors which lead to academic retardation of the visually handicapped.
3. After completing pre-primary or primary education at special institutions, emphasis should be laid on placing the visually handicapped in integrated educational settings.

Singh (1987) conducted a research work on the topic titled, "Evaluation of integrated educational facilities for physically handicapped in the schools of Bihar."

The main objectives of the study:

1. To evaluate the availability of facilities and to ascertain the gap between the facilities granted and the facilities available.
2. To study the extent of integration and the problems faced by the handicapped in this process.
3. To compare the adjustment of the handicapped students with that of the others.
4. To study the measures adopted and efforts made by the schools for integrated education.
5. To examine the intake process for admitting handicapped students.
6. To evaluate the monitoring and administration of the programme.

Major findings of the study:

1. Facilities granted by the govt. were not availed of by the schools.
2. Facilities available in the schools were not enjoyed by the students for whom they had been provided; only 33% resources allotted for the purpose were utilized.
3. The admission policy was not appropriate and good enough.
4. Physically handicapped students were well-adjusted with their families, but there was lack of communication between such students and their non-physically handicapped classmates. In this regard the resource teachers were not trying to bridge the gap.
5. The schools had not taken the advantage of the training facilities extended to them for the resource persons of the handicapped students.
6. None of the schools had the facility of a separate resource room, and facilities like free books and stationery were not availed of by some of the schools.

Cowasji (1985) conducted a study on the topic entitled "A study of the effectiveness of the orientation programmes for teachers working in the integrated education for disabled children in Rajasthan."

The main objectives of the study:

1. To find out the present position of available resources, system of working and implementation of institutional plans in the schools selected for orientation by SIERT, Udaipur.
2. To assess the effectiveness of the teachers after their orientation.
3. To make suggestions for improvement in the system of working and in the orientation programme and ways of providing more resources.

The major findings of the study:

1. The headmasters of the selected schools were highly qualified having experience and expertise in the field of teaching-both disabled and normal children.
2. The academic and professional qualifications of the teachers were of the expected level and all of them were trained.
3. The special resource rooms for disabled children in those schools were in good conditions.
4. Financial assistance was received from the government and the greatest beneficiaries were the physically handicapped.
5. Teachers maintained their diaries regularly in all the schools.
6. Special activities were run in all the schools and each school had a special project.
7. The teachers felt that the orientation programme helped in raising their standard and it was useful.

Rane (1983) conducted a study on "Integrated education of disabled children: An evaluation of the scheme of integrated education for handicapped children based on a study of the working of the scheme in Maharashtra."

The objectives of the study:

1. To examine the administrative infrastructure of the implementing agency i.e., Department of Education, Govt. of Maharashtra, for operation of the scheme.
2. To conduct a survey of schools providing integrated education for handicapped children in Maharashtra under the provisions of the scheme.
3. To study the socio-economic characteristics of the beneficiaries of the scheme.
4. To examine the role of agencies in Bombay working in the field of education, training and rehabilitation of the handicapped in the formulation, publicity and implementation of the scheme.
5. To conduct a survey of schools in Maharashtra which provided integrated education to handicapped children but did not implement the scheme.

Major findings of the study:

1. Officials of the directorate of education had many difficulties in implementing the scheme, such as non-availability of trained and experienced teachers, lack of orientation on the problem of disabled children and their

educational needs, lack of proper machinery to identify disabled children, non-availability of equipments and educational materials etc.

2. There was no definite intake policy and admission procedure for selection of suitable children for their placement in the integrated education programme.
3. Many schools did not utilize the full grants for books, stationery and equipments.
4. Majority of the schools had no resource teachers and resource rooms.
5. Majority of the parents/ guardians found integrated education useful for their disabled children.
6. Most of the institution-based beneficiaries belonged to poor families in rural areas.

2.4.0 Studies Conducted on Rehabilitation of Special Group Students at Higher Education Level

Fitchen, et al. (2013) conducted a study on the problem titled, "Information and communication technology profiles of college students with learning disabilities and adequate and very poor readers."

The main objectives of the study was to compare ICT use and experiences of students with LDs to those of adequate readers and also to a group not typically mentioned in the literature, namely very poor readers who do not report an LD.

The findings of the study indicated that students from the French colleges were generally less comfortable with ICTs than those from English colleges, and that students with an LD were less comfortable with ICTs than Very Poor Readers, who in turn were less comfortable than Adequate Readers.

Ntombela and Soobrayen (2013) made a study on the topic titled, "Access challenges for students with disabilities at the University of KwaZulu-Natal: A situational analysis of the Edgewood campus." The study explored the nature of access challenges faced by the students with visual disabilities at the Edgewood campus of the University of KwaZulu-Natal. The findings of the study shows that access has improved for the students with disabilities, but there are some barriers such as shortage of human resources (trained teachers/personnel) and physical resources, instructional materials like Braille, translator etc., which limits the participation of students with visual disabilities in the academic programmes.

Mistry (2012) conducted an investigation on the problem entitled "A study of students with disability in the universities of Gujarat."

The main objectives of the study:

1) To study the enrolment figure of the students with disability in the universities of Gujarat.
2) To study the educational profile of students with disability in the universities of Gujarat.

3) To study the academic, social, financial and health related problems of students with disability in the universities of Gujarat.
4) To study the help-seeking behaviour of students with disability in the universities of Gujarat.
5) To study the facilities provided to the students with disability by the universities of Gujarat.
6) To study the needs of students with disability to overcome their problems.
7) To conduct case studies on selected academically high achiever and low achiever students with disability in order to find out the reasons of their success and failure.

Methodology of the study:

This was a cross-sectional survey type of study as data were collected at a single point i.e., during the academic year 2008-09. Using purposive sampling technique total nine universities were selected covering 143 populations for the study. Considering the objectives of the study four tools (Information schedule for the universities, Information schedule for the teaching departments, Questionnaire for the students with disabilities and Interview schedule for the academically high and low students with disabilities) were developed by the researcher and the same were used to gather required data/information. The collected data were analyzed both qualitatively as well as quantitatively in order to reach a valid conclusion.

Major findings of the study:

1) The overall enrollment of the students with disabilities (SWD) in the universities of Gujarat was very less compared to the 3% reservation rule. The difference between observed and expected enrollment was found to be 81.09%. The enrollment of SWD was found more in the Arts and other disciplines than Science and Commerce. Among three categories of disability, majority of the SWD (88.83%) were having orthopaedic impairment. The enrollment of students with visual impairment and hearing impairment were found very less whereas there was no enrollment of the students with multiple disabilities.
2) Regarding the educational profile, it was found that the SWD were not claiming age relaxation benefit as more than 65%of them were found in the age group 20-24 years. The difference between the enrollment of male and female SWD was found 3:1 so the government's efforts for providing education to girls did not seem much effective in this group of girl students. The enrollment of SWD from rural areas was seen more in SPU and GV.
3) Regarding the academic problems, it was found that the lack of awareness, guidance and restriction from concerned authority greatly affected to 37 (25.87%) SWD in selection of course. Due to mobility problems and physical weakness, 13 (9.09%) SWD felt afternoon time was not suitable to them for study.

4) It was revealed that 64 (44.75%) SWD were facing problem of unavailability of adequate finance for their study and they had to manage their study cost through different sources like relatives and friends (20.28%), scholarship (2.10%), bank loan (5.60%), doing extra works (4.90%) and minimizing the study cost (4.90%).
5) It was found that majority of the SWD were not having social problems. The students with visual impairment and hearing impairment were easily adjustable with others than students with orthopedical handicapped. Inferiority complex was affecting to the students with orthopedical handicapped (25.39%) in interaction with others and in adjustment with their peer. The adjustment problems were due to difficulty in interaction (3.17%), lack of support from friends (1.58%) and inability to perform normal activities (1.58%).
6) It was found that majority (90.91%) of the SWD were living healthy life and were receiving guidance for maintaining good health (86.01%), whereas some of them (6.99%) were facing speech related problem, physical weaknesses and lack of hemoglobin.
7) It was found that 44 (30.76%) SWD were using disability aid/equipment to cope up with their disability condition. All the 4 students with visual impairment and 3 students with hearing impairment who were using disability aids were adjusted with the particular aids, whereas 12 orthopedical handicapped students were not adjusted with the disability aids.

Jameel (2011) conducted a study on the problem titled, "Disability in the context of higher education: Issues and concerns in India."

The main objectives of the study:

1. To find out the approximate number of students with disabilities in the colleges.
2. To study the nature and extent of disabilities prevalent in students with disabilities.
3. To study the admission policy and procedure applicable for students with disabilities.
4. To know the financial assistance given to the students with disabilities.
5. To study the mode of entry (whether it is through reserved disability quota, general or any other reserved quota) of students with disabilities into the colleges.

Methodology of the study:

This study was carried to know the wide-ranging characteristics of students with disabilities in the colleges. Colleges of Delhi University offering B.A., B.Sc. and B.Com progammes were taken as the first criteria for the selection of colleges. There were 63 such colleges, out of which 15 colleges were randomly selected for this

study. Out of 15 colleges in two colleges there were no students with disabilities. Data were collected personally from the sampling colleges through self-developed tools (Information pro forma and Interview schedule). The information pro forma was filled in the administrative offices of the colleges with prior permission of the principals of the respective colleges. In this study the administrative staff was interviewed. The information was also collected from the Equal Opportunity Cell of Delhi University which deals with issues of students with disabilities.

The major findings of the study:

1. Higher education increases the chance of employability, thus, affirming dignified life for the persons with disabilities.
2. In case of policies and programmes in India it is found that not much has been done in the field of disability and higher education.
3. There are number of groups working on the school education of children with disabilities. This has not translated in the entry of students to higher education because of various reasons.
4. Infrastructural facilities within institutions, attitudes towards persons with disabilities, transportation facilities, and lack of support services are a few areas which hinder the entry of students with disabilities into higher education.

Sachs and Schreuer (2011) conducted a study on the problem entitled "Inclusion of students with disabilities in higher education: Performance and participation in student's experiences". The main objective of the study was to examine the broad perspective of achievement and experiences of students with disabilities and to compare it to those of students without disabilities. The results of the study revealed that: (i) the academic achievement of students with disabilities were almost as high as those of students without disabilities, and overall students' experiences were similar, and (ii) students with disabilities invested more time to meet the demands of their studies, participated in fewer social and extra-curricular activities and did not use computers and information technology much.

Alqaryouti (2010) conducted a study on the problem entitled "Inclusion of the disabled students in higher education in Oman."

The major objectives of the study:

1. To identify the obstacles to the inclusion of the handicapped students in Sultan Qaboos University (SQU).
2. To highlight the obstacles they face in the university setting and to provide enough information to the decision makers in the university.

Major findings of the study:

1. There were statistically significant differences in the barriers to inclusion due to the type of disability and scores gained by the visually handicapped.

2. The visually handicapped students had problems in the social domain compared to the physically handicapped students.
3. There were some problems for the visually handicapped students in the environmental domain. These problems might occur because the visually handicapped students might not reach the lectures, restaurants or other places which were easiest to reach for the physically handicapped students.
4. There were no statistically significant differences in the obstacles of the inclusion due to the gender or the degree of the disability, but there was a statistically significant difference for the interaction of the two variables, the degree of disability and the gender.

Chaturvedi (2010) made a study on "Universal design for instruction for students with disabilities at the post-secondary level."

The major objectives of the study:

1. To investigate the perception of faculty members at University of Arkansas, Fayettaville (UAF) regarding the extent of usage of principles and practices of UDI.
2. To investigate the perception of students with disabilities regarding the teaching practices of instructors that can help them to succeed in their classes at UAF.

The findings of the study:

The study revealed that according to students' report and faculty self-report, faculty members were more likely to use certain principles of UDI as compared to other principles, and semi-structured interview showed that students with disabilities can be benefitted if principles of UDI are incorporated in teaching practices at the post-secondary level.

Liana (2010) examined "Class placement and academic and behavioural variables as predicators of graduation for students with disabilities." The objective of the study was to investigate the potential significance of inclusive settings and other school related variables within the context of promoting graduation potential of students with specific learning disabilities. The findings of the study revealed that the students with specific learning disabilities (SLD) in inclusive settings experienced better academic results and behavioural outcomes than in self-contained settings, and students with SLD in inclusive setting were found to be more likely to obtain passing grades and less likely to be suspended from school.

Philip and Milly (2010) conducted a study on "Hearing the voices of disabled students in higher education."

The objective of the study was to examine the perspectives of students in higher education (HE) related to their experiences of induction onto their course, course

delivery, barrier to learning and links into employability with the purpose of gaining a rich insight into the various stages of the student life cycle.

Major findings of the study:

1. Of the25% of students declared that they had a disability and stated that they had not disclosed this on their university application form due to perceived fear that they may not be offered a place on the course of their choice.
2. Of the 75% of students who declared a disability on their university application, 47.6% indicated that they had not been contacted prior to the commencement of their course by either academic or welfare services staff.
3. Of the 52.4% of disabled students who were contacted prior to the start of their courses, only 36.4% said it was either a helpful or very helpful process.

Jacklin, Robinson, O'Meara and Harris (2007) conducted a study on the topic entitled "Improving the experiences of disabled students in higher education."

The main objectives of the study:

1. To explore the educational and social experiences of disabled students within one higher education institution.
2. To identify ways in which their experiences may be improved.
3. To examine how useful the category 'disabled student' is as a basis for targeting support.

The major findings of the study:

1. Majority of the respondents reported that their overall learning and social experiences of higher education were positive. However, 22.4% respondents reported that they were not happy with their learning experiences, 12.5% respondents said that they were not satisfied with their social experiences, and a small proportion i.e., 7.5% respondents stated that they were unhappy with both the learning and social experiences.
2. Many of the negative experiences cited by disabled students were not related specifically to impairment, but were more general student concerns.

Allsopp, Minskoff and Les (2005) made an investigation on "Individualized course-specific strategy instruction for college students with learning disabilities and ADHD: Lessons learned from a model demonstration project." The main objective of the study was to examine an individualized strategy instruction model designed to assist postsecondary students with learning disabilities and ADHD to increase their success in meeting rigorous academic demands. A variety of data sources were used to evaluate the implementation of the model as well as the academic success of students who received individualized strategy instruction.

The findings of the study indicated that: (i) the group as a whole as well as the subset of students on probation and suspension significantly improved their grades and sustained this improvement over time, (ii) qualitative analysis identified two factors

related to academic improvement viz., independent use of strategies and the supportive nature of the strategy instructor student relationship, and (iii) qualitative analysis also identified two factors related to non-improvement i.e., academic/cognitive skill deficits and emotional/medication related issues.

Fuller, Healey, Bradley and Hall (2004) made an investigation on "Barriers to learning, a systematic study of the experience of disabled students in one university." The objective of the investigation was to study the obstacles that were faced by the handicapped at university. The results of the study indicated that there were many obstacles such as the fast rate of the teachers' speech during the lectures as well as difficulty in participating in the discussion and answering the questions. Further, some lecturers resented allowing disabled students to tape the lectures and it was difficult for the disabled students to access the educational centers. Suitable computer programmes were also lacking.

Ibrahim (2001) conducted a study on the topic titled, "The problems of visually impaired students in Jordanian University." The research work studied the problems of visually handicapped students in the University of Jordan. The results of the study revealed that the existence of problems such as using the library, transport, difficulties in teachers' understanding about their needs. The study did not show any significant differences due to the handicapped, gender, the degree of disability, and level of education.

Borland and James (1999) conducted a case study on "The learning experience of students with disabilities in higher education: A case study of a UK University." The results of the study revealed that access to facilities is often regarded as one of the most straightforward areas to deal with, but access issues for students with a range of disabilities are extremely complex. Access issues need to be more frequently related to campus-wide issues and to settings outside of the university such as student's pubs and cafes.

Hodges and Keller (1999) made a study aimed at recognizing the extent to which students perceive the process of inclusion of the handicapped students in the university. The results of the study indicated that there were many problems that the visually impaired students faced such as problems of transport, problem of developing a social relationship with their peers etc.

Wiseman, Emry and Morgan (1998) conducted a study on "Predicting academic success for disabled students in higher education." The purpose of the study was to assess the effect of being disabled on the academic progress of disabled college students. A questionnaire assessing the campus' social climate, the quality of its programmes and instruction, and the students' academic and career expectations was administered to 100 disabled students. The findings of the study revealed that the

disabled students' motivation was significantly related to their level of social alienation, while the students' perceived competence was mostly related to their level of social adjustment.

Heidari (1996) studied the barriers faced by the college students with disabilities in the laboratory setting in engineering, mathematics, and science education. Most of the courses which require laboratory work pose challenges to those with disabilities and pointed out that instructors should be aware of the individual needs of students with disabilities and should make necessary accommodations.

Masaedeh (1995) conducted a study on "The problems of the handicapped student in Jordanian University." The main objective of the study was to identify the problems of handicapped students in Jordanian Universities. The major findings of the study indicated that the most obvious problems were- special learning materials, infrastructures, negative attitudes, transportation etc., which were related to the services of the disabled students. In addition, there were many concerns about the future of disabled students, and their psychological, social, and health issues. On the other hand, the study did not show any significant difference due to the gender of the disabled, degree of disability and type of disability.

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