2.0. Introduction

A collection of research work done by earlier researchers is technically called as ‘literature’. Any scientific investigation starts with a review of the literature. Review of literature gives an idea of the research done previously, suggests basis for hypothesis and provides background for the method of study. It also helps to avoid unnecessary duplication. A careful review always aims at interpreting prior studies and indicating their usefulness for the study to be undertaken. Thus prior studies serve as the foundation for the present study. Better perspective for future research can be had with the help of reviewing the previous research works.

2.1. Studies Conducted in India

2.1.1. Studies on Learning Difficulties in Students

Studies on the learning difficulties, causes, characteristics, factors, related to learning difficulties and diagnosis of learning difficulties were reviewed and presented under this heading.

Chandra Kala Singh and Bimla Dhanda (2008) studied on children with learning disabilities in relation to different ecological factors. This investigation was carried out in Haryana on 60 respondents from various schools of rural area of Hisar district, preferably students with low academic performance in the class were selected for the study which were of age between the 6-8 years. McCarthy scales of children abilities, visual motor integration text (VMI) directionality sub test were used to detect the LD among the children.
The mothers of LD children were also interviewed to find out the opinion of mothers and causes responsible for disability among the children through self structured interview schedule. It was observed that the parents who were not able to provide their children with good resources, proper care, academic and play material suffered from two or more learning disabilities. Parents also had opinion that due to lack of resources, education and motivation, they could not provide their children healthy environment for learning.

Jyotsna Saxena and Shireesh Pal Singh (2008) studied on technical competency of different level teachers. Teaching competency of primary and secondary schools teacher on the basis of different levels like gender, medium and training. The study used normative survey method. 200 teachers as sample were chosen by stratified random sampling. As a data gathering instruments self made questionnaires were used. Data were tabulated and analyzed by using mean, S.D. and critical ratio. The following conclusion was reached that secondary and trained teachers have good competency than primary and untrained teachers, while no difference found on the basis of gender and medium.

Julie Eben and Sebastian (2007) studied on assessing the proficiency and teaching competency of the special educators in the field of special education for the mentally challenged. For the purpose of this study, a sample of 30 teachers and 7 principals working in Madurai District are chosen. To identify their teaching competency, TCSAS (Teaching Competency Self-Assessment Scale) and TCPRS (Teaching Competency Principal Rating Scale) have been used consisting of 6 dimensions Viz., academic activities, behavioura management, Co-curricular and extra curricular activities, organizational activities, assessment and co-operation with the management. These competencies are assessed on the basis of the teacher’s gender, age, marital status, professional nature, and nature and location of the school, the
teaching competencies of the teachers are also rated by the respective school principals with respect to sex, age, nature and location of the school. The teaching competencies of the teachers are also rated by the respective school principals with respect to sex, age nature and location of the school, marital status, etc. It is found in this study that there is significant difference in the teaching competency of the teachers with respect to nature and location of the school, professional nature, marital status, age and seminar conducted status of the principles.

Sheema Aleem and Lavanya Rastogi (2007) studied on self-esteem and adjustment of children with learning disabilities and attention deficit hyperactive disorder. Learning disabilities signify inadequate development in a specific area of academic, language, speech or motor skills. Since self esteem and adjustment involving complex psychological processes play important roles in the life of individuals, children with the visual or auditory perception of information and an inability to perform paper-and-pencil tasks. Students with learning disabilities show significant school acquired learning difficulties and need special education Teachers to help them reach their potential in school. Persons with learning disability are average or above average in intelligence. They describe being slow, possesses the ability and motivation to perform the task accurately but, are hampered by high cognitive load which requires slow and sustained efforts. Most students with learning disabilities have symptoms which can be linked to mathematical difficulties commonly referred as dyscalculia/dyscalculia. Factors that play a role in mathematical learning include language, conceptual, visual, spatial and memory abilities. Proper identification and remediation may reduce the wastage and stagnation and thereby can enhance education status of our children.

Dilip Nath (2006) studied on causes of disabilities and socio-demographic characteristics of disabled females in India. Around 18.49 million population in India suffers from some form physical, sensory or
mental disabilities. The females with disabilities represent one of the most vulnerable and marginalized sections of society. It is necessary to study the causes of disabilities and demographic characteristics of the disabled females show that possible preventive measures can be taken by policy makers and programme implementation manager, thus helping to reduce the extend of disability among the women based on disability data collected by national sample survey organization (NSSO) during 2002 this study seeks to assess the cause of disability and outline the demographic characteristics of the distilled females in India. Among the prevalence of disability by birth, Meta disorder, locomotor and speech disability are higher among females than those of males. Marriage rate for the females disabled is higher than that of male. It was also observed that 90 percent of the disabled females ruminated out of labor force.

Reddy and Santhakumari (2006) studied on effectiveness of metacognitive strategies for overcoming the second language learning difficulties at higher secondary level. Metacognitive ability and linguistic proficiency have a bi-directional relationship and the metacognitive awareness enables learners to use cognitive behavior management mechanism (such as task-orientation, task-planning, self—monitoring, self-regulation and self —evaluation). Adoption of these metacognitive strategies liberates the learner from dependence. Based on these theoretical prosperities, the current experimental study had three major objectives: (i) to identify Language Learning Difficulties (LLD) students at Higher Secondary (HSC) Level through curriculum – based and teacher – made diagnostic tools; (ii) to assess the metacognitive awareness of second language learners, and (iii) to develop appropriate metacognitive strategies and find out the extent of effectiveness of metacognitive strategies training in overcoming language learning difficulties (LLD) in Receptive, Phonological and Expressive (RPE) language areas. A well – defined procedure was followed for metacognitive strategies
adaptation during second language acquisition process. The results revealed that LLD students were able to cope up to a significant extent with the normal group students. Thus this research study is intended to examine the effectiveness if metacognitve strategies for overcoming the second language learning difficulties at Higher Secondary Level.

Krishnakumar et.al. (2006) studied on effectiveness of individualized education program for slow learners. Objectives: To evaluate the effectiveness of an individualized education program for children with scholastic backwardness. Methods: Among the children attending a Child Guidance Clinic for scholastic backwardness, 12 of them who were diagnosed as slow clearness based on current level of academic functioning and IQ, and 6 children having mild mental retardation were given individualized education for a period of two months. Independent assessors evaluated the academic functioning at the beginning if the training and at the end. Result: The result showed that the children had significant improvement in their academic functioning and self esteem after the training. Conclusion: The present experiment can be a model to set up a resource room in normal schools to provide individualized education to children who are slow learners.

Sreedevi and Mayuri (2006) conducted a study on effects of child’s learning disabilities on parents. To determine the effects of child’s learning disabilities on parents. Ex-post facto research design was for the study. 60 parents of LD children (30 random sampling from associative + 30 children with specific LD) were selected by purposive random sampling from the cities (Hyderabad and Secenderabad) of Andra Pradesh. The data was subjected to multiple regression analysis. Results revealed that the major determinant factors of these effects were education of the child, family income, severity of learning problems, presence of associative disorders, approach coping, negative perception and attitudes towards LD children, remedial programme and disciplinary practices.
Sundar (2005) analyzed the school dropouts and retention of enrolments based on socio economic status with reference to primary education in Cuddalore district in Tamilnadu. Objectives of this study: To analyze the performance of district primary education programme in Cuddalore on the basis of time series data, to analyze the socio-economic causes and reasons for school dropouts at the primary level education in Cuddalore district; To study the factors promoting schools enrolment in consequence of implementation of District Primary Education Programme from the point of view of parent respondent; To suggest certain policy measures to enhance the school enrolment and to achieve the goal of education for all. Major Findings: Economic reasons in school drop out are quite common in some blocks – Nallur, Mangalore where S.C. population is predominant. Reduction in girl students drops out due to effective implementation of SSA’s schemes for girl education. Poor infrastructure facilities in some schools. Need of more number of teachers to handle different classes. Lack of coordination among village panchayats, parent-teacher association, NGO’s and Education.

Pati (2004) studied the magnitude and pattern of disability in a rural community in Karnataka. Study design is cross-sectional in the setting of two villages in the field practice area of Kasturba Medical College, Manipal, and Karnataka. Participants are People between 5 to 60 years of age. Statistical Analysis used are Proportions, Chi-square test. Results shows that and the prevalence of disability was 2.02%. The prevalence was higher among females (2.14%) than among males (1.89%). The prevalence was higher in the 45-59 years age group. Locomotor disability was very common.

Kusuma Harinath (2001) studied certain factors related to learning disabilities in English among school students. The objectives of the study were to develop diagnostic tests to identify reading, writing and spelling difficulties; to study the personality characteristics of students with learning
difficulties and; to study the awareness of teachers and parents about learning difficulties. The study reveals that 1) boys experienced more reading disabilities than girls, 2) age and class had no effect, 3) community influenced on their spelling difficulties, 4) parents educational qualification influenced learning difficulties, 5) location of school influenced on the learning difficulties, 6) medium of instruction also influenced learning difficulties particularly spelling difficulties, 7) mass media has no influence, 8) parents income influenced learning difficulties but not writing difficulties, etc. Thus this study delineates various factors related to learning difficulties in English among school students.

Geetha (2000) attempted to find out the impact of adapted techniques on achievement of dyslexic children. The objective of the study was to identify children with reading disability, ii) to determine the areas in which they need corrective instruction iii) to develop remedial package and implement on the selected children iv) to evaluate the progress of the children with dyslexia v) to find out the relationship between the achievement of the students and adapted techniques followed.

Anna Elizebeth Kuruvilla (1999) investigated creativity among the learning disabled children. The objectives of the study were 1) to assess the level of creativity of the learning disabled children. 2) to compare the creativity scores of the learning disabled boys and girls of std IV and V studying in government, government aided and corporation schools, 3) to establish relationship between creativity scores of learning disabled and economic status of the family and, 4) to determine if creativity scores of learning disabled are influenced by literacy of their parents.

Mehta et.al. (1993) attempted to study the learning problems in rural primary school children. Their study shows that the common learning problems in the rural primary school children were-poor memory (24.52%),
poor comprehension (20.19%), poor concentration (18.5%), specific learning disabilities (6.9%), anxiety and stress (11%) and conduct problems (6.9%). They also pointed out that an orientation programme to create awareness of mental health aspects should be imparted to teachers, which in turn would help them to understand the student better. They also listed the different types of learning disabled children such as: i) Oral – language disabilities: Dysphasia and Aphasia, ii) Reading disabilities - Dyslexia, and Alexia, iii) Writing disabilities – Dysgraphia, Revisualization problems, formulation and syntax disorders, spelling problems and iv) Arithmetic disabilities.

Srivastava, et.al. (1992) studied learning disabilities among elementary school children: influence of sex, age and religion. The study focused on the identification of the learning disabled and assessment of their ability in reading, writing, spelling, language and arithmetic. The results revealed that age had a significant influence on disability in reading, language, writing and spelling. There was no significant difference between boys and girls in their disabilities in reading, arithmetic language and spelling but sex had a definite bearing on the writing disability of the learning disabled. The Hindus, Muslims and Christians did not differ significantly on five types of learning disabilities.

Mohapatra (1991) studied the problem of reading, memory and attention processes of normal and reading disabled children. The sample comprised 40 subjects, 20 each from Grade II and Grade IV. Among them, 10 were normal and 10 were reading-disabled. The tools used included decoding test, comprehension test, letter cancellation test, visual closure test, visual memory test, auditory closure test, and auditory memory test. The study reveals that the normal and the reading-disabled children did not differ with respect to their intelligence. In the case of decoding score, normal subjects of both grades performed better than the reading disabled subjects. In the case of oral reading errors, the normal children made significantly less errors than the
reading disabled children. There was a significant difference in comprehension as a function of reading ability only and not grade. There was a significant difference in the digit span score as a function of reading ability only and not for grades. This indicated that the normal children of both grades had better performance in digit recall than the reading disabled of both grades. The differences in the errors in letter cancellation as a function of grade were not significant. There was no significant difference in the letter cancellation time as an effect of grade as well as an effect of reading ability.

Desal (1985) conducted a study on learning disabilities of primary school children in Gujarat. The findings were: 1) the most potential causes of learning disability was poverty, 2) the second cause of the malady was the apathy of teachers to their duties in school, 3) the third cause of learning disability was the abolition of examination from standard I and II in the schools of Gujarat and, 4) low intelligence was also one of the cause of the malady.

Ramaa (1984) conducted a study on diagnosis and remediation of dyslexia. In identification phase, dyslexics were identified from among a group of 550 children who were studying in grades III and IV and having Kannada as their first language at school through an exclusionary approach by using a set of criteria. Out of those 550 children only 14 could be identified as dyslexics, in diagnostic phase, this phase involved comparison of the neuropsychological process of dyslexics, non-dyslexic poor readers and normal readers, comparison of the errors committed by all the three groups while reading Kannada, analysis of the developmental history of the dyslexics was examined. The major findings were: 1) dyslexics were differentiated from the other two groups by visual verbal association ability, 2) dyslexics may or may not have deficiency in one or more visual and/or auditory processing skills, 3) majority of normal readers were deficient in visual processing skills in comparison with the other two groups, 4) like dyslexics, even non-dyslexic poor readers were relatively more deficient than normal
readers in auditory processing skills, 5) there was no qualitative difference in the reading errors committed by the three groups of readers, 6) all the three types of readers got confused usually between letters with auditory or visual or auditory-visual similarities, 7) in most of the case the substitute for the correct response while recognizing a letter as a word was same in all the group of children, 8) ‘Visuo-spatial’ difficulties observed among dyslexics while reading Kannada, 9) though, in individual cases there were behavioural symptoms like delay in speech and/or motor development, cross laterality hyperanxiety and impulsivity, there were no such symptoms common to most of the dyslexics, 10) the etiology of dyslexia could not be traced in all the cases, 11) the remedial programme was found to be effective in improving the accuracy of letter and word recognition to a considerable extent among all types dyslexics, 12) the remedial programme was less effective in improving the speed of letter and word recognition and, 13) in almost all the dyslexics, the level of reading comprehension improved after the remediation.

Barr (1974) attempted to study the auditory perceptual disorders in children with reference to language learning. The major objectives of the study were i) to study the auditory perceptual disorders in children with reference to language learning and ii) to focus on the listening experience of children with provided the foundation for language acquisition. The study revealed that i) statistically significant differences existed between the children with learning problems and normal control group on the standardized tests and ii) syntactical complexity rather than auditory memory was the critical factor in correct sentence repetition.

To sum up

Mohapatra (1991) studied the problems encountered by the children with learning difficulties. These are some of the studies related to learning difficulties conducted in India. Learning difficulties is a new challenging area of special education and it is gaining momentum only in the recent years. So in developing countries like India, studies on learning difficulties are only limited in number.

2.1.2. Awareness, Attitude and Competencies of Teachers for Students with Learning Difficulties

Once the teacher knows he is able to make difference in teaching-learning process, he is ready to develop needed skills and abilities to handle children with learning difficulties. The studies dealt under this heading give a clear picture about the competencies requires to handle children with learning difficulties. Some research studies on learning attitudes and performance that he/she has to posses while handling children with learning difficulties are given here.

Reddy and Sujathamalini (2005) explains the success of inclusive education programmes to the disabled children to a large extent depends on the teachers’ awareness, attitude and competencies to deal children who are differently able in the regular classroom. The organizational, teaching & learning and guidance & counseling activities should be tuned to meet the individual need of the learners. It is natural that awareness leads to formation of better attitudes and in turn they transform into better competencies. This study aimed to a) assess the awareness, attitude and competencies of normal school teachers on different aspects of disabilities in children, b) find out the relationship between teachers awareness & attitude, awareness & existing competencies, and attitude & existing competencies to deal children with disabilities, c) find out significant differences, if any, in the awareness, attitude and competencies of teachers on different aspects of children with
disabilities due to variation in their gender, age, educational qualifications, training in special education, years of experience, location of school, nature of school, category of school and type of school they are working, and d) study how far and what extent the independent variables of the teachers influence the dependent variables.

Survey method is used in the study. A three-point awareness rating scale and competency assessment rating scale and five-point attitude scale are used to assess the awareness, attitude and competencies of the teachers. The area of the study is the Tamil Nadu and Andhra Pradesh States in South India. 527 teachers working primary level in 76 normal schools of the four districts randomly selected from the two states are the sample of the study. The statistical techniques used are mean, SD, mean plus or minus one SD, t / F test, correlations and stepwise multiple regression analysis.

The results revealed that in most of the disability aspects in children, the school teachers possess only moderate and low awareness, and attitude with moderate competency; Higher the awareness better will be the attitude and Competencies, better the attitude more will be the competency of the teachers in dealing children with disabilities and; Training in special education, nature of school, gender and location of the school are the significant predictors to the teachers awareness, attitude and Competencies. Based on the results of the study, the researchers suggested the need to sensitize the teachers develop better attitudinal building programmes and organization of need based and situation oriented training programmes to the teachers on different aspects of disabilities in children.

Saraswathi (2005) studied the identification of learning difficulties in Environmental Science at elementary level in Madurai District and suggestions to overcome. Development of scientific attitudes, raising scientific and technological competence, encouraging, creativity and solving...
problems related to daily lives are the main objectives. Methodology: Population, sample and sampling technique, inventory, Teaching aids tools, Half yearly Examination answer papers from class 3 to class 8, Interview. Major findings: 1) Less number of difficulties with science graduates and graduates in class 6 Chemistry 2) More areas of difficulties were observed in class 7 3) SSA training programme for teachers can be planned involving all teachers simultaneously so that the students and teacher will not suffer, when few teachers go for training and the remaining teachers manage the school. Strategies based on findings: Awareness can be developed – Software related to Science, encyclopedia, embedded assessment, E-learning etc.

Santhanam (2005) studied the remedial programmers for children with learning difficulties. Objectives of the study i) To measure the level of intellectual development of the children with learning difficulties. ii) To provide psycho-educational intervention programmes to the children with learning difficulties to enhance their academic performance. iii) To conduct training programmes to the teachers and parents regarding learning difficulties to help the children, to improve their academic performance. Methodology: 1) Test - formal assessment 2) General Intelligence and aptitude tests 3) General achievement test 4) Personality test Geographical Coverage: Thiruvallore, Villupuram and Kanchipuram Districts. Major findings: i) The intellectual capacity of the children with learning ability is significantly higher them those with learning disability. ii) Children with learning disability shower better academic performance after remedial programme. Strategies based on findings: i) Orientation programmes regarding learning disability may be arranged in collaboration with NGOs for the teachers. ii) Awareness and remedial programme about learning disability to be conducted through print and electronic media. iii) Periodically counseling programmes to be arranged for teachers and parents in this regard.
Seetharam (2005) conducted a study on the social integration of children with mild and moderate disabilities in mainstream classrooms under Sarva Shiksha Abhiyan, Tamilnadu. Objectives of the study i) To find out the peer group affiliation of mainstream school students towards their disabled classmates. ii) To find out the differences in peer behavioral assessment between disabled students who are accepted and isolated by their classmates. iii) To explore the perception of the class teacher on the academic and social behavior of the disabled students. iv) To make an estimation of various aids and facilities that are made available to the disabled students and to find out the extent to which the facilities are being utilized. Methodology: 1) Demographic data sheet 2) Peer Group affiliation scale adopted from the measurement of sociometric status & structure developed by Bronfenbrenner 1945. 3) Peer behavioral assessment scale modified version of Coie.et.al 1982. 4) Teacher rating scale of the disabled student’s behavior profile. Major Findings: i) The disabled students at the primary level have scored more in peer group affiliation and academic performance than the disabled students at middle school level. ii) Psycho-physical developmental stages are significantly related to peer group affiliation and academic performance. Pre-adolescents have performed better than adolescents. iii) Family, annual income, social community status and categories of disability have significant effect on the peer group affiliation; peer assessed behavioral characteristics and academic performance. iv) Socio-metric status of the disabled students has significant effect on academic performance and all the components of peer behavioral assessment. Strategies based on findings: i) Interventions on self-concept and self-esteem building to be implemented right from pre-adolescence level. ii) Individualized structured, consistent and contextual interventions for social integration. iii) Co-operative learning procedures, modeling of appropriate social behavior play group and leisure activity arrangements. iv) Involving parents and NGOs in bring forward disabled achievers as models for the disabled.
Reddy (2004) took up a study on special and normal school teachers’ competencies in dealing children with disabilities. The result of the study revealed that, in more than 50 percent of the aspects, the special school teachers’ competency was low and moderate, whereas in all the competency aspects the normal school teacher’s competency was low and moderate.

Mohankumar and Rajaguru (2002) attempted to find the effectiveness of multimedia instructional strategies on the achievement of learning disabled children in learning maths concept. The objectives of the study were: i) to identify learning disabled children and ii) to find the effectiveness of multimedia instructions over the conventional method of teaching on the achievement of learning disabled children in learning maths concepts. Further, this study attempts to compare the academic achievement of learning disabled children in terms of background variables and the method of teaching in the classroom. The data collected from the different treatments were subjected to statistical analysis. The investigators found that the multimedia instruction facilitated the children with learning disabilities in learning maths concepts rather than their counterparts in conventional teaching group. This type of experimental study will be extremely useful in the field of education to deal children with learning disabilities.

Sujatha malini (2002) conducted a study on competencies required for primary school teachers to handle learning difficulties in children. The objectives of the study were: i) To find out the significant differences if any, in the possessed competencies of primary school teachers to handle learning difficulties in children due to variables ii) To find out the significant differences if any, in the required competencies of primary school teachers to handle learning difficulties in children due to variables the teachers working primary schools the sample of the study. The result of the study revealed that, in more than 60% of the teachers have stated that they want to raise their competency of the aspects. But the remaining 40% teachers have not felt the
need for enrichment. The study results shows that teachers with less experience possess better competency than their counterparts on various competency areas of learning difficulties.

Reddy (2000) conducted a study on role performance of special education teachers. In his study role performance of teachers dealing visually impaired, hearing impaired, mentally retarded and orthopaedically handicapped was studies. He also investigated the problems faced by these teachers in organization, teaching & training and providing guidance & counselling. Role performance scale and problem checklist were used in this study for data collection. The result of the study showed that the performance of teachers in guidance & counselling is low when compared to organisation and teaching & training roles.

Dharmaraj (2000) reports in his study on awareness of primary school teachers towards learning disabilities in mathematics at primary level that educational qualification of the teachers have influenced the awareness of primary school teachers. Further, the post-graduate teacher possesses better awareness than the secondary grade and graduate teachers on the aspects of learning disabilities in mathematics.

Nagomu Ruth (2000) created awareness on learning disabilities among regular school teachers. Objectives of the study were i) to access the knowledge among regular school teachers on learning disabilities, ii) to organize awareness programmes, iii) to give knowledge about identification and remediation for learning disabled and, iv) to evaluate the impact or effect of knowledge gained by regular school teachers. The result of the study shows that the awareness programme was found to be effective.

Sarojini (2000) conducted a study on the awareness of primary school teachers towards learning disabilities in English at primary stage. Her study reveals that there is need to generate awareness among primary
school teachers towards learning disabilities in English. The personal variables such as years of experience, type of school, locality of school also influences awareness of primary school teachers towards learning disabilities.

Selvakan (2000) conducted a study on creating awareness on integrated education of the disabled children to the regular teachers. The objectives of the study were 1) to find out the previous knowledge of the regular school teacher, about disabled children, 2) to prepare instructional materials on various concepts related to the education of disabled children, 3) to organize an awareness programme for regular school teacher, 4) to develop knowledge about the role of teachers to meet the special needs of the disabled children and 5) to evaluate the imparted knowledge gained by regular school teacher. The result reveals that the knowledge about the role of teachers to meet the special needs of the disabled children is improved by organizing awareness programme and the awareness programme was found to be effective.

Sivakami (2000) investigated on the effectiveness of certain instructional strategies to overcome learning disabilities in English at primary stage. The major focus was on the remedial instructional strategies to be adopted for the children with reading, writing and spelling difficulties. The post test achievement scores were higher than the pre-test achievement scores. This throws light on the effectiveness of the remedial instructional strategies used to overcome learning disabilities in English.

Geetha (1997) conducted a study of efficacy of remedial package in augmenting primary school teachers skills to help dyscalculic children. The objectives of the study were a) to sensitise primary school teachers towards children with learning disabilities, b) to assess the academic performance of primary school children and identify.
Velumani (1997) prepared remedial instruction for children with arithmetic disabilities. Objectives of the study were: i) to identify children with arithmetic disability at primary level I to V Std, ii) to assess the specific problems encountered by them, iii) to prepare instructional materials for remediation and, iv) to study the effect of remedial instruction on children with arithmetic disabilities. The result reveals that the remedial instructional materials were found to be effective. Number chart, matching cards, group of sticks, beads, stones, buttons for addition, drawing picture and number line for division, cards with square shaded half, full, quarter for fraction, digital clock for time real coins and currency for teaching money concept were used in the remedial instructional materials.

Jayanti Narayanan (1994) has developed grade level assessment tool for children with learning problems in such schools. Teachers can use or adopt these tests for testing children who fail consistently in one or more subjects. The Grade Level Assessment Tool (GLAT) helps primary school teacher to test his/her student while systematically making observation of the processing pattern in a child.

Rozario and Kapur (1993) conducted a study on effectiveness of intervention strategies with students who have problems in learning. The objectives of the study were (i) to identify the nature of the learning problems of these students and (ii) to help them through suitable remedial education. 25 students with learning problems were assesses for language and arithmetic skills. They were allotted randomly to 5 groups. Each group was given around 25 sessions of remedial education. At the end of 25 sessions, a post-treatment assessment was done. The results indicate that there was significant improvement in language and arithmetic skills. There was no significant difference between the students who took tuition and those who did not take tuition.
Mohite and Preana (1989) attempted to develop and implement a classroom instructional programme for children with learning difficulties. The sample comprised 60 children belonging to all the three municipal corporation schools. Among them, 18 had dropped out. Finally, 42 children were considered. The tools used included Teachers’ Rating Scale (TRS), Graded Word Test of spelling (GWT) and Criterion Referenced Test (CRT) of reading. Major findings of the study were: 1) 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 the control group progressed to higher-level paragraphs. 3) on listening comprehension, it was found that most of the 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.

Bhattacharya (1986) investigated the learning disabilities developed by secondary school students in algebra. The major aims of the study were: 1) to conduct a survey of the learning disabilities developed by the beginners in secondary schools under the west Bengal Board of Secondary Education in linear equations, 2) to conduct a scientific experiment on the effectiveness of two mathematical methods for prevention of learning disabilities usually developed by the beginners in linear equations sums in one unknown in algebra, and 3) to provide from the results of the experiments a satisfactory mathematical method for beginners for solution of linear equations. The findings are as follows: 1) Students develop more learning disabilities in the understanding of linear equation sums to one unknown than the knowledge of solving sums. 2) Students develop more learning disabilities in the application of linear equation sums in one unknown than in the knowledge of solving
such sums. 3) The simplified method is more effective than the method of transposition for the development of knowledge of students in solving linear equation sums in one unknown. 4) The simplified method is more effective than the method of transposition for the development of application ability of students in linear equation sums in one unknown.

To sum up


2.2. Studies Conducted Abroad

Studies done abroad were collected from various sources. The collected studies were presented under different sub headings.

2.2.1. Studies on Learning Difficulties in Students

Studies on learning incidence, learning difficulties, identifying and helping children with learning difficulty and causes of learning difficulties were presented under this heading.

Mazzocco et.al. (2010) studied on the Turner syndrome is a common genetic disorder associated with select deficits in executive functions, working memory and mathematics. In Study 1, the researcher examined
growth trajectories of skills in these areas, from grades 1 to 6, among girls with or without Turner syndrome. Rates of growth and performance levels at 6th grade, on an untimed math achievement test, did not suggest that girls with Turner syndrome have math learning difficulty (MLD). However, analyses did reveal lower efficiency on timed executive function tasks, among girls with Turner syndrome, who traded accuracy for speed under mild to moderate working memory demands. In Study 2 the researcher compared numerical processing skills of 6th graders who had Turner syndrome, MLD, low math achievement, or typical achievement in math. A numerical decomposition task revealed numerical processing deficits for the Turner syndrome and MLD groups, relative to typically achieving students. The relative difficulties in how numerical processing vs. working memory demands affected performance accuracy differed among groups, with the former demands leading to more performance difficulties in the Turner syndrome group. Our findings support the notion that girls with Turner syndrome recruit different strategies than their peers during allegedly basic numerical processing, that numerical processing deficits vs. executive function deficits underlie their difficulties with mathematics, and that math difficulties among these girls may not be apparent on untimed tests. These findings have implications for a possible manifestation of MLD.

Bellert, Anne (2009) focuses on the cognitive factors that impact on students in the middle school years experiencing learning difficulties in basic mathematics. Focus then shifts to an implementation of the Quicksmart intervention. Quicksmart is a basic academic skills intervention designed for persistently low-achieving middle-years' students. In this small-scale study, 12 middle school students experiencing learning difficulties participated in the Quicksmart mathematics program. Comparisons are made between the mathematics progress of the intervention group and eight average-achieving peers. The results indicate that on measures of response speed and accuracy
Quicksmart participant students were able to narrow the gap between their performance and that of their average-achieving peers. Further, on standardized tests of more general mathematical knowledge, participant students improved significantly from pre-test to post-test. Implications are drawn regarding the importance of interventions that emphasize automaticity in basic mathematics for middle years students with learning difficulties.

Brown, Sheena (2009) revealed the findings of a participatory ethnography with post-secondary students enrolled in a large West Coast University in British Columbia who had previously been identified as learning disabled and thus, the recipients of special educational policy interventions. Instead of starting from the official meanings of the special education policy discourses, this study puts front and centre the meanings and experiences of the students themselves. It uncovers the formative work the students engage as they negotiate the contradictory ideologies of meritocracy and equal opportunity while living with the label and realities of various learning disabilities. The students discourses are read in relation to and against the dominant common-sense ideologies of special education. The study takes into account the students readings in light of their personalities as racial, classed, gendered, in addition to living with the label of learning disability. Contrary to the claim that meritocracy and equal opportunity are merely superimposed myths internalized by the students, the students' understandings demonstrate that both ideologies involve their active agency to claim abilities and normalcy as counter-hegemonic moments in relation to the larger special education and educational discourses that represent their learning disabilities as deficient. The implications of this study shed light on how the discourses of students with learning disabilities may be used to read in transformative ways the schooling practices, policies and pedagogies. Normal is not so stable and taken for granted after all. Ability is as much a claim to agency and capacity for learning disabled students as it is for the non-disabled.
Chard and David, et.al. (2009) conducted a study for students with or at risk for learning disabilities, developing fluency with reading connected texts remains a formidable challenge. In response, teachers often use repeated reading practices designed to provide students with multiple exposures to the same words. This study examined research focused on determining the efficacy of repeated reading approaches for improving reading fluency for students with or at risk for learning disabilities. Studies employed experimental/quasi-experimental and single-subject research designs. Results suggest that repeated reading is not supported by rigorous research as defined by the quality indicators used and therefore, is not an evidence-based practice based on those criteria for students with and at risk for learning disabilities. Implications for future research and for practice are discussed.

Ghinis, et.al. (2009) examined the difficulties among Greek senior high school students identify in learning Statistics and how these difficulties are related to the course's level of difficulty. Also it examines the difficulties students identify that teachers face while teaching Statistics, their suggestions for changes and how these difficulties and suggestions are related to the level of the students' satisfaction by the method of teaching. In the paper a case-study is presented, that was designed and realized at the Department of Statistics and Insurance Sciences of the University of Piraeus. In the study 163 students from experimental and private high schools participated, all attending the 3rd grade of Greek senior high school.

Leons, Eve et.al. (2009) explores reasons of students with learning disabilities and attention deficit hyperactivity disorder (AD/HD) struggle with the foreign language curriculum and how their difficulties manifest themselves in the classroom setting. Findings of a three-year, federally funded study that sought to combine expertise in the field of learning disabilities with expertise in the field of language teaching are presented. Discussion includes
how accommodations for students with learning disabilities and AD/HD often miss the mark, and which teaching practices have been identified as supporting student learning.

Clark and Lyndsay (2008) conducted a study with the aims at understanding the perspectives of students with learning disabilities that are placed in general education inclusive classrooms. The main focus of this research is to determine if the students with disabilities feel included by their peers and teachers as active and important members in the class. The qualitative research was conducted using semi-structured, one-on-one interviews with three students with mild learning disabilities in an inclusive English Language Arts class. Observations during a period of three months were also used in this research to obtain student interactions with peers and staff, as well as responsibilities and roles the students maintained. The most significant results were obtained from the interviews with the three subjects in the study. Two of the three students, when asked about disabilities, only associated physical handicaps with the word; they did not think of themselves as having a disability of any kind. The other student commented that she used to have a disability, but since then has been corrected and wasn't disabled anymore. Overall, the students liked their classes and the help they received from the staff. All of the students interacted well with their peers in class; some held classroom responsibilities everyday such as helping with attendance and homework collection. Appended are: (1) Key areas interviews were concerned with; (2) Types of information to be looked for via observation; and (3) Category and sub-categories regarding interviews and observations.

Kikas, Eve, et.al (2008) explains the relationships among verbal skills of primary school students with learning disabilities and a typically developing comparison group were studied and compared with written tasks carried out in Estonian classrooms. Word defining, categorizing/justifying,
guessing, and memorizing tasks were used. The participants were 251 students in Grades 2-4; of these, 163 were described as achieving normally and were in regular education classrooms, and 88 were diagnosed as having specific learning disabilities and attended special schools or classes for students with specific learning disabilities. Except for performance on the memorizing tasks by grade, all the scores were better in upper grades. Children with learning disabilities performed less well than the children in the typically developing comparison group on all the tests.

Ulf Andersson (2008) examined on the mathematical performance of 182 third and fourth graders in 8 different areas of mathematics. The children belonged to 4 achievement groups: children with mathematics difficulties (MD only), children with both mathematic and reading difficulties (MD-RD), children with reading difficulties (RD only), and normally achieving children (control group). Both MD groups performed worse than the normally achieving children in all but 1 area, place value knowledge. The MD-only and the MD-RD children performed equally in all areas of mathematics. The RD-only group performed at the same level as the control group on all areas of mathematics. The study provides further evidence that fact retrieval deficits are a cardinal characteristic of children with MD. The MD children’s substantial difficulties with mathematic word problem solving can be attributed to several processes involved in problem solving. Besides poor skills in multi digit calculation, arithmetic fact retrieval, and poor understanding of calculation principles, children with MD might have deficits related to specific problem-solving processes such as establishing a problem representation and developing a solution plan.

Goodman, Gay et.al (2006) examined on the reading achievement scores of 66 third- and fourth-grade students who were referred by their general education teachers on the basis of a suspected reading disability. Before a reading disability diagnosis was conducted, each student was
reviewed by an Intervention Assistance Team and intervention assistance was provided. Nevertheless, all students were ultimately referred. Findings indicated that only 21 of the 66 students referred qualified as having a reading disability. Three other students qualified in another area of exceptionality. Forty-five percent of the students referred for a reading disability actually passed the state minimum competency reading test the same year they were referred for special education. The implications of these findings for the newly approved Response-To-Intervention method of diagnosing reading disabilities are discussed.

Carlson, Shirley (2005) depicted a two hundred year history of learning difficulties. The purpose of this study was to track the history of learning difficulties and collect intervention theories which might be helpful for adult college students suffering from any number of learning difficulties (LD). There is a vast difference between a learning difficulty and a learning disability; an individual with learning difficulty can learn using conventional teaching techniques while LD requires specialized interventions which depend on the type of disability. The most common forms of LD are dyslexia—also known as word blindness, dyscalculia, dysgraphia, and short term memory dysfunction. LD can result from injury; it can be hereditary; it can come in many forms. Although it is no longer considered a form of mental retardation, it is now known that true LD is directly related to some type of brain malfunction. They found that LD did not originate in the 1960s—as some people believe—but actually spans the time from Napoleonic reign to space age exploration. Scientists, researchers, and educators know quite a bit about LD now, but they still do not know nearly enough to help the multitude of individuals afflicted with those conditions.

Myers and Helen-Nicole-Frye (2005) studied on how elementary school counselors can meet the needs of students with disabilities. Many young children with disabilities have unique personal/social needs in addition
to academic issues related to their disability. Current research suggests a number of personal/social difficulties that come with a diagnosis of a physical disability, emotional disorder, or learning disability. This study presents the results of an ethnographic study that examined how three elementary school counselors meet the personal/social needs of students with disabilities. For this study, the term “students with disabilities” included any student with a disability who was receiving special education services in each counselor’s school. Counselor strategies, reliance on theories, and use of the ASCA National Model[R] are explored. Critical themes to emerge out of this study included the influence of the ASCA National Model, advocacy, the variety of counseling strategies, collaboration and teaming, and leadership. Implications for school counselors are presented.

Deborah and Speece, et.al (2003) referred that the most definitions of learning disabilities (LD) include a qualification that adequate general education instruction was received and the child with LD did not benefit. Rarely is this tenet assessed in either practice or research before a diagnosis is made. We review three studies that investigated children’s responsiveness to general education reading instruction as an indicator of need for more intensive interventions. Adequacy of instruction was quantified by children’s level and rate of progress, compared to classmates, as measured by curriculum-based measures of oral reading fluency. We found that the response-to-instruction model tested was valid in that (1) children who differ from their peers on level and slope of performance (dual discrepancy) have more severe academic and behavioral problems than children who have IQ-achievement discrepancies or low achievement; (2) children who demonstrate persistent non-responsiveness over three years differ from other at-risk children on reading, reading-related, and behavioral measures; and (3) at-risk children who participated in specially designed general education interventions had better outcomes than at-risk children who did not
participate. We conducted additional analyses to assess low achievement definitional variations and found that they lack sensitivity and coverage compared to a dual discrepancy definition.

Case, Lisa Pericola (1997) studied mathematical understandings to know how students with learning difficulties progress in a constructivist classroom. Six students and their teacher were the focus participants in the study. The teacher participant had two years of experience in project IMPACT, a research study which helped teachers to improve the mathematics achievement of all students through more constructivist teaching methods. The results suggested important relationships between participants' mathematics learning and a) their role in the classroom community, b) the methods of instruction and, c) the influence of relationships outside of the classroom. Specific strengths discussed in the conclusions are students' willingness to take risks and their level of involvement. Weaknesses are indicated in the area of instructional grouping, assessment techniques, and teacher support.

Coronado and Marco (1995) studied the anxiety of learning disabled school children with remedial instruction. The purpose of the study was to investigate the anxiety levels of elementary school learning disabled (LD) students provided with at least one semester of remedial instruction. The results indicate that compared to non-LD, the LD students displayed significantly higher levels of general anxiety, worry, over sensitivity, social concerns and concentration difficulties. Learning disabled females displayed significantly higher levels of general anxiety, worry and over sensitivity than LD male students. In addition, learning disabled 5th grade females showed significantly higher levels of anxiety than the learning difficulties of 3rd and 4th, grade male and female students. Moreover, learning disabled and regular education lower grade students did lie significantly more than upper grade students.
Holcomb, et.al (1995) attempted to compare the achievement of low-achieving and learning disabled elementary school students. This study examined the academic progress in basic reading skills of students identified as learning disabled (LD) with and without ability / achievement discrepancies and low-achieving non-disabled (LA) students. The purpose was to examine the characteristics of LD and LA students, to investigate their achievement in reading during a school year, and to explore the factors that influenced their academic progress in light of the discrepancy assumption of the learning disabled definition. The result reveals that the learning disabled students exhibit distinct characteristics that distinguish them from other low achievers. The discrepancy component of the learning disabilities construct suggests that the learning disabled have with discrepancy between ability and achievement in reading. Students would benefit more from special education instruction than other low achievers and that they would make more academic progress than learning disabled with no discrepancy (Learning Disabled — ND) students because of higher ability (IQ).

Bennerson, et.al (1991) evaluated two social skills interventions designed to increase the peer acceptance of six students (ages 10-12) with learning disabilities in regular classrooms. The students were instructed in two social skills strategies as well as in skills for working in small groups and leading group activities. Two mnemonic devices were used to facilitate the skills training: the FAST strategy and the SLAM strategy. The FAST strategy (Freeze and Think, Alternatives, Solution, Try It) aids in interpersonal problem solving. The SLAM strategy (Stop whatever you're doing, Look the person in the eye, Ask the person a question if you do not understand exactly what s/he means, Make an appropriate response to the person) enables students to accept and assimilate negative feedback and remarks by others. The SLAM strategy was practiced by the target students and presented to the
class in the form of a rap song. Compared to a similar control classroom, results suggest modest intervention effects, with some increases in peer ratings of acceptance of the targeted students by their regular education peers (ERIC: JDD).

Affleck, et.al (1988) compared the academic achievement of students with learning disabilities in an integrated classroom model, with the achievement of students having learning disabilities in a resource room programme. No significant differences were found between the achievement scores (ie., in reading, maths, and language) of students in the respective programmes. They also note that the integrated classroom model was shown to be less costly than the resource room program but the two placements achieved similar results.

To sum up

2.2.2. *Studies on Characteristics of Students with Learning Difficulties*

Paul and Cirino et.al (2007) enumerated the objectives of their study as following (1) evaluate group differences in specific arithmetic competencies among students with various types of learning difficulties (LD) and (2) to examine the influence of attention behaviors on possible group differences. Participants were a community sample of 291 third – and fourth – grade students with reading difficulties (RD) and/or math difficulties (MD), or with no LD (51 MD, 66 RD, 89 MD + RD, and 85 No LD students). Students were administered computerized measures of cognitive addition, subtraction, and estimation (accuracy and response times), as well as other measures. Groups were compared with and without covariation for behavioral inattention and their interactions. Small sums addition, thought to reflect retrieval processes, estimation accuracy, and number knowledge, did not show differences between MD and MD + RD students, although both showed lower performance than the RD and No LD groups. Attention behavior had a variable impact, most typically making group differences larger, but did not alter the general pattern of group differences, except in the case of estimation.

Wagner, Mary and Blackorby, Jose (2002) used data from special education elementary longitudinal study that included more than 11,000 students (ages 6-12) to explore the primary disability classification assigned to students by their schools, the variety of disabilities that parents reported, functional limitations associated with students’ disabilities, disability identification, and early intervention services, findings indicate: (1) almost three-fourth of students with disabilities were classified as having a learning disability or a speech impairment; (2) parents reported an average of 1.5 disability categories, ranging from 1.4 for students in the speech/language impairment category to 3.0 for students classified with deaf-blindness; (3) speech was cited as the most frequently limited function, with 43% not
able to speak as clearly as other children; (4) 5% of parents of white students and 6% of African American students asserted their children had no disability, whereas parents of 10% of Hispanic students did so; (5) 24% of the students were first recognized as having a disability when they were infants or toddlers, and 22% were identified in their preschool years; and (6) students from wealthier households were more likely to be identified as infants or toddlers and receive earlier services.

Coleman (2001) conducted a study with twenty-one middle school boys who were both gifted and learning disabled were interviewed to learn how they would handle hypothetical difficult school situations. Results are summarized in four tables that list: (1) how other people can help, (2) strategies for coping with academic content, (3) strategies for test taking, and (4) general strategies.

2.2.3. Studies on Factors Associated with Students with Learning Difficulties

Alexander Stamatios Antoniou, et.al (2009) investigated the specific work-related stressors affecting special educational needs teachers in Greece and the coping strategies applied by them. One hundred fifty eight special education teachers (158) participated in the study, recruited from Athens (n = 113), and other urbanised areas of Greece (n = 45). Pilot interviews were conducted in order to generate a scale for measuring specific sources of stress in Greek special education teachers. The resulting scale(s), together with the Coping sub-scale of the Occupational Stress Indicator were administered to the sample, and a number of socio-demographic factors were also obtained by the use of a detailed biographical questionnaire. The results identified five key stressors, loading mainly onto the domains of working conditions, workload, and organisational problems, which appear to have an impact on teachers of Special Educational Needs students in Greece. Furthermore, a number of key coping strategies were identified by the
teachers, as a means of dealing with work-related stress. The implications of the study are discussed, with a view to forming suggestions for stress intervention programmes.

Holzer, Mary LaFrance et.al (2009) explains the limited research exists related to empirically validated strategies to assist college students with learning disabilities (LD). Given that students with LD demonstrate both fewer test-taking skills and higher levels of test anxiety than their peers without LD, and poor test-taking skills contribute to higher levels of test anxiety, such research is critical. The present study examines the effectiveness of the test-taking strategy on test performance (timed/untimed), degree of strategy usage, and time on test-taking task, with a sample of university students with LD. This strategy has been successful with adolescents with LD, but has not been studied with postsecondary populations. Results of a multiple baseline design suggested that the strategy was an effective intervention for these students.

Morgan Watson, et.al (2009) explain the purpose of this study was to compare the effects of two corrective feedback methods, word-supply and phonics-based, on the oral reading fluency of students with mild disabilities. The participants included three students in the fourth grade who were diagnosed with a Specific Learning Disability (SLD) or Emotional and/or Behavioral Disorder (EBD). A single subject modified parallel treatments design (Alberto & Troutman, 2008) was used to evaluate the effectiveness of the two types of feedback methods (e.g., word-supply and phonics-based) on the students oral reading fluency skills. In the word-supply condition, students were provided the whole word upon a miscue, while in the phonics-based condition students were provided the word phoneme-by-phoneme in a sounded-out fashion. Feedback procedures were implemented upon the occurrence of word miscues during the oral reading. Dependent measures included the number of correct words per minute, recorded as a rate on
individual passages taken from leveled readers. Results of the fluency data collected on the errors corrected using either the word-supply or phonics-based feedback method revealed that the word-supply feedback condition was slightly superior for two of the three students.

Lyndsay and Clark (2008) aims at understanding the perspectives of students with learning disabilities that are placed in general education inclusive classrooms. The main focus of this research is to determine if the students with disabilities feel included by their peers and teachers as active and important members in the class. The qualitative research was conducted using semi-structured, one-on-one interviews with three students with mild learning disabilities in an inclusive English Language Arts class. Observations during a period of three months were also used in this research to obtain student interactions with peers and staff, as well as responsibilities and roles the students maintained. The most significant results were obtained from the interviews with the three subjects in the study. Two of the three students, when asked about disabilities, only associated physical handicaps with the word; they did not think of themselves as having a disability of any kind. The other student commented that she used to have a disability, but since then has been corrected and wasn’t disabled anymore. Overall, the students liked their classes and the help they received from the staff. All of the students interacted well with their peers in class; some held classroom responsibilities everyday such as helping with attendance and homework collection.

Sharman Jeffries and John Everatt (2004) reports a study contrasting dyslexic children against a control group of children without special educational needs (SEN) and a group with varied SENs. Children’s abilities were compared on tasks assessing phonological processing, visuo-spatial/motor coordination and executive/inhibitory functioning; being targeted for assessment based on theoretical proposals related to the working memory model. Primary and secondary school level children were tested: 21
assessed as dyslexic with no comorbid difficulties, 26 children assessed with difficulties including dyspraxia, emotional/behavioral problems and attention deficits, 40 children with no known education-related deficits were controls. Results indicted both SEN groups performed worse than controls on working memory phonological loop measures. However, SEN groups could only be differentiated on phonological awareness measures: the dyslexics showing lower scores. Dyslexics performed as well as controls on working memory visuo-spatial scratch pad measures and one of two additional visual-motor coordination tasks, whereas the performance of the other SEN children was lowest on the majority of these measures. Central executive and interference measures engendered mixed performances, both SEN groups showing evidence of deficits in one or more of these areas of functioning, although, of the two SEN groups, the dyslexics seem to have performed the worse when digit name processing was required.

Barga (1996) examined the factors that have contributed to the success of students with learning disabilities (LD) in schools and to explore how these students manage their disabilities from kindergarten through college. The study followed a qualitative research methodology consisting of reviewing academic records and conducting interviews and classroom observations over a 6-month period. The subjects were 9 students with learning disabilities enrolled in a public 4-year university. It was found that the students experienced labeling, stigmatization, and gate keeping throughout their school years. Furthermore, the students employed a variety of positive and negative coping techniques in an effort to successfully manage their disabilities in school. Positive coping techniques included relying on benefactors, implementing self-improvement techniques, and utilizing particular strategies and management skills to assist with academics. Negative coping techniques were described as "passing" and created tension for the students. Students employed passing techniques to avoid disclosure of their disability and to
make it through school. The results of this study have significant implications for school administrators and university educators who provide services for students with LD under current federal laws, and further underscore the need for such students to self-advocate.

2.2.4. Awareness Attitude and Competencies of Teachers for Students with Learning Difficulties

Williams, Peter et.al (2010) contributes to an incremental base of research exploring usability issues related to information and communication experiences and needs of individuals with learning difficulties. A web portal designed specifically with the intended users in mind (i.e. individuals with learning difficulties) has been developed and piloted through a Rix Centre (UEL (University of East London)) initiative in collaboration with a number of schools and adult service organisations. Seven individuals aged 14-16 years and identified with mild learning difficulties participated in the study. Assessment of findings includes evidence of participant self-directed interest and initiated use of web technologies, recognition and competent utilisation of basic navigation tools, and simple task completion within the web portal itself. Areas of noted interest warranting further exploration include participant behaviour in regard to limited length, depth, and frequency of individual web site browsing; participant difficulty with advanced navigation skills and eye-hand coordination connected to directed cursor movement and mouse manipulation; and web content readability levels. Additionally, further consideration exploring a user's degree of real information acquisition is necessary better to ensure meaningful and relevant web experiences for individuals with learning difficulties.

Campbell, Joan Yvette (2009) evaluated the English as a Second Language (ESL) program at a southeastern technical college. Thousands of adults who enroll in ESL programs are individuals who appear to be
intelligent. They have worked diligently for a year or more to learn to speak, read, write, listen and improve English comprehension skills. However, some of these students make little or no progress. In certain cases, ESL instructors often presume some students are affected by learning disabilities. Students with learning disabilities may experience problems with one skill or every aspect of learning. ESL programs cannot feasibly provide accommodations to address every indicator of learning disabilities. However, programs may identify the primary learning disability indicators that seem to commonly affect their students and provide accommodations to tackle those issues. The problem is that the ESL program at the college had not been evaluated to determine the primary learning disability indicators that may affect students. A sample population of students enrolled in the ESL program was randomly selected to participate in the study. These participants responded to a validated student questionnaire. The results from the data analysis of the student questionnaire showed the indicators of learning disabilities that posed the most challenges for participants of the study. Results from the data analysis also reflected the percentages of respondents of the study who could relate to one or more of the indicators of learning disabilities. The outcome revealed the leading difficulties that may affect not only the participants of the study but also other students enrolled in the program. As a result, ESL instructors at the institution should be familiar with how to accommodate students who show symptoms of those learning difficulties. On-going training may be necessary to provide instructors with updated information on different accommodations that will best fit the learning needs of students who show symptoms of learning disabilities. Results from the data analysis for the student questionnaire are appended.

Moller, Jens et.al (2009) explained the internal/external frame of reference (I/E) model by Marsh assumes that, besides social comparisons with their classmates, students engage in intraindividual, dimensional comparisons,
comparing their own achievement in one subject with their achievement in other subjects. These dimensional comparison processes are assumed to result in negative paths from achievement in one subject (e.g., math) to self-concept in another (e.g., the verbal domain). In a study with N = 270 students, we investigated the generalizability of the I/E model to students with learning disabilities. Analyses showed positive correlations between math and German achievement and positive effects of achievement in both subjects on the corresponding domain-specific self-concept. Verbal and math self-concepts were almost uncorrelated. Moreover, there were negative effects of achievement in one domain on self-concept in the other. Our results therefore indicate that the I/E model can be generalized to students with learning disabilities.

Kaehne, Axel and Beyer, Stephen (2009) reports the findings of a study of professionals in strategic and operational positions who were involved in transition planning for young people with learning disabilities. Respondents were asked to comment on what they regarded as the optimal aim and outcome of transition from school to post-school placements. The results illustrate the problems and advantages of inter-agency partnerships in delivering meaningful post-school destinations for young people leaving school.

Maria Del Carmen Tejeda-Delgado (2009) studied on the teacher efficacy and teacher tolerance, along with teacher gender, which was examined for their relationship with the number of students teachers referred to special education. In a sample of 167 elementary school teachers from an urban school district in the State of Texas, no statistically significant relationships were yielded between teacher tolerance and referrals made to special education; between teacher efficacy and referrals made to special education, and, between teacher years of experience and referrals made to special education. In addition, no differences were found in teacher
tolerance and teacher efficacy as a function of gender. Results were not supportive of previous research studies. Implications of these findings are discussed.

Derrick and Smith, et al., (2009) explained that using the expert opinion of more than 30 professionals, this study set out to develop a set of assistive technology competencies for teachers of students with visual impairments. The result of the study was the development of a highly reliable and valid set of 111 assistive technology competencies.

Christina and Van Kraayenoord et al., (2009) reports on a case study of an exemplary teacher who was a participant in a professional learning project, write ideas. The teacher provided instructional support in writing to a targeted student with learning difficulties in an inclusive Year 8 English classroom. Analytical frameworks were developed and applied to the data that had been collected from various sources. The case study sheds light on the multi-faceted nature and complexity of providing responsive and tailored instruction in writing to students in an inclusive setting.

Teresa Chiu, et.al (2008) aim to evaluate a workshop designed to improve teacher awareness about fine motor problems and occupational therapy. The study involved three groups: preservice (N = 34), general education (N = 30), and special education (N = 19) teachers. Each group received a 2 ½- to 3-hour interactive workshop. They completed the Fine Motor Awareness Scale (FMAS) before, after, and one month following the workshops. Preservice teachers had the greatest learning needs on the topic. All three teacher groups showed significant improvements in the FMAS scores post-workshop, with the greatest change in the preservice teachers group, followed by the special education and then the general education teachers. Knowledge transfer principles contributed to the success of the workshops. Post-workshop evaluation showed teachers wanted more content
and longer, multi-session workshops in future. Preservice, general and special education teachers need to know more about fine motor problems and occupational therapy. Knowledge-transfer workshops provided by occupational therapists can meet their learning needs and subsequently help their students to improve fine motor problems.

Errol Dupoux (2008) assessed the perceptions of high school students with learning disabilities about the suitability or preference of an academic or vocational curriculum. Students were administered the Vocational Academic Choice Survey (VACS), designed to measure students’ perceptions of which curriculum is more suitable for them. Results revealed that a more academic type of curriculum was preferred if students had not repeated a grade, achieved a relatively high GPA, and planned to go to college. Post high school plans and positive attitudes toward academic subjects showed to be the strongest predictors of the suitability score. By itself, post high school plans accounted for about 35% of the variance in curriculum suitability.

Steven Elliott (2008) ascertained the relationship between teachers’ attitudes toward the inclusion of children with mild to moderate mental disabilities in physical education settings and the amount of practice attempts performed and the levels of success attained by these students compared to their peers without disabilities. The findings suggested a relationship between teacher attitude towards inclusion and teacher effectiveness. Teachers with a positive attitude toward inclusion provided all of their students with significantly more practice attempts, at a higher level of success.

Olli-Pekka Malinen and Hannu Savolainen (2008) took a sample of 523 Chinese university students was given a questionnaire on their attitudes towards the inclusion of children with disabilities into regular classrooms.
Factor analysis, analysis of variance, t-test and correlations were used to assess the respondents’ general attitude towards inclusion, the factor structure of the attitudes, the relationship between demographic variables and the attitudes and the ratings of best educational environments for students with different kinds of disabilities. The analysis revealed that (a) the participants’ average attitude towards inclusion was slightly negative; (b) four factors, named as social justice, meeting the special needs of the pupils with severe disabilities, quality of education and teachers’ competence, were extracted (c) the most important background variable that explained the attitudes was the participants’ major subject in the University; and (d) the ratings for the best educational environment for a student with a disability varied according to different types and levels of disability.

Stella Chong and Mei Lan (2008) explained that the Hong Kong, students with emotional and behavioral difficulties (EBD) are generally shunned by teachers in mainstream schools both because of their misconduct and as a result of their disaffected attitude towards learning. Consequently, these students are generally placed in special schools. This study is the first of its kind to report research findings in all seven EBD schools in Kong. Focus group interviews were conducted to find out what were the most effective teaching approaches to meet the needs of these students. The present study found that there are general and distinctive approaches employed by teachers, some of which appear to be culturally oriented. This study argues that teachers in Hong Kong tend to intertwine their cultural background and life experiences with commonsense logic in managing their disaffected students. It was also apparent from the study that the majority of their practices and epistemological knowledge are underpinned by some sound theoretical frameworks. Several implications are drawn from the findings.
Knivsberg and Ann Mari et al. (2007) studied the problem behavior that hampers learning and the normal development of skills and competencies. The children in focus in this study from Norway are six-year-olds with persistent problem behavior. Early identification of these children is imperative for the implementation of structured educational interventions. Knowledge about their behavior and skills is therefore important. The aim of the study reported here by Ann-Mari Knivsberg, professor of special education at the National Centre for Reading Education and Research at the University of Stavanger, Synnove Iversen, physiotherapist and research fellow at the University of Bergen, Magne Nodland, speech therapist and special educator, and Karl-L Reichelt, senior consultant and researcher at the Paediatric Research Institute at the National Hospital in Oslo, was to assess the participants' behavior and their cognitive, linguistic and motor skills and to correlate behavior and skills. The participants were 31 children enrolled in a "high-risk" programme for children with problem behaviour. Standardised test materials were used to obtain information on their behaviors and skills. Social problems, attention problems, anxiety and depressive traits were the most frequently reported behavioral problems. Linguistic delay, lower than normal cognitive scores and severe motor coordination difficulties were also detected. Correlations were found between various behavioral traits and between the behavior and the skills. Attention problems were most frequently correlated to cognitive, linguistic and motor functioning. The study called for multi-disciplinary approaches to the design of future assessment and intervention strategies and to further research into the effectiveness of available screening instruments and intervention programmes.

Lisa Woolfson, Elizabeth Grant and Lindsay Campbell (2007) aimed to explore teachers' attributions for learner difficulties in their schoolwork. In order to explore their attributions of controllability and stability, three groups of teachers, general mainstream class teachers (N = 39), mainstream learning support teachers (N = 35), and special school teachers (N = 25) were asked to
rate vignettes about children’s difficulties. The results showed that the two
groups of teachers working in the mainstream settings viewed learners with
identified support needs as having less control over their performance than
those with no specific support needs, while special school teachers viewed
both learner groups similarly. Similar findings were found for teacher
attributions of controllability in high-ability and low-ability learners. Stability
attributions across all conditions showed that special school teachers viewed
children’s difficulties as more amenable to change than did the two groups of
mainstream teachers. The implications of these findings for inclusion in
mainstream schools are discussed.

Brown, William Michael (2007) intended to examine teacher’s
perceptions and knowledge of test accommodations for students with
disabilities. This survey, which was sent to 600 general education and special
education teachers in Virginia, collected information on teachers’ perceptions
of their own preparedness, the fairness and helpfulness of test accommodations,
and their basic knowledge of test accommodations for students with disabilities.
Teachers reported that they were generally confident in their knowledge, but
that they perceived their college teacher preparation programs and to a lesser
extent, their staff development programs, were lacking. In regards to the
fairness of test accommodations both special and general education, teachers
also felt that it is fair that only students with disabilities and English as a
Second Language students receive test accommodations. Both groups also
perceived that all 10 of the specific test accommodations presented in the
survey were either very helpful or helpful to students and that reading the test
aloud was the most helpful test accommodation. Both special education
teachers and general education teachers demonstrated started a very good
knowledge of test accommodations for students with disabilities. There was
little difference between the two groups in their knowledge of test
accommodations for the students with disabilities.
Leung, et.al., (2007) found that the early identification of children experiencing difficulties in learning is essential for timely and effective intervention. The aim of this study was to develop a screening instrument for identifying students with learning difficulties at the end of the first term of primary classes in Hong Kong. This study describes the development and validation of a 27-item checklist on 549 students. Validity testing performed included content and expert, contrasted group, concurrent and predictive validity; all were found to be satisfactory. In addition, test-re-test reliability was assessed to be good. The checklist can be administered in 10 minutes for each student based on everyday observations of the students; no specific testing of the students would be required. A longer version with 97 items was also made available for teachers to conduct a more comprehensive evaluation of a child’s performance.

Cecilia Obeng (2007) demonstrates that a majority of the students with disabilities in Ghanaian classrooms (in Accra and some rural areas in Eastern Region) did not have their disabilities detected or identified by professionals. The study also shows that vision impairment is the most common problem reported by the teachers in the schools, especially in Accra. Also most of the teachers did not have any training in teaching children with disabilities. This situation limits their capability of helping the children with disabilities meaningfully toward achieving their educational goals. The study also demonstrates that some teachers were not happy to have children with disabilities, especially those with behavior problems, because of their large classes. It is recommended that the Ghana Education Service makes Special Education courses a major component in the teacher training curriculum in Ghana, and also appoints experts on children with developmental problems to organize workshops for teachers in order to increase teacher effectiveness in dealing with children with disabilities.
Dedrick, Robert, et.al (2007) studied on experimental analysis of question wording in an instrument measuring teachers attitude toward inclusive education. An experimental study (n = 288 general and special education teachers) examining the effects of altering the referent (“students with mild disabilities,” “students with severe disabilities,” or “students with disabilities”) on a four-item scale (Negative Effect of Inclusion) indicated that wording change had little effect on the scale’s psychometric properties (e.g., factor pattern coefficients). Changes did result in a shift in the mean level of the attitude scale. Regression coefficients between the scale and type of teacher, total years of teaching experience, years of experience at current school, and training in inclusion were not significantly altered by changing the referent. Gender was the only predictor that exhibited a lack of invariance in its regression coefficients across questionnaire forms that differed in referent.

Havey, Michael (2007) researched on comparison of dutch and us teachers perceptions of the incidence and management of ADHD. Dutch and US teachers were questioned about their perceptions of the incidence and causes of ADHD, as well as their views of appropriate treatments. Dutch teachers were more likely than US teachers to think the etiology of the disorder lay in biochemistry, while US teachers were more likely to believe in a combination of environmental and biochemical factors. Both sets of teachers believed a combination of medical and behavioral interventions was the most effective treatment. Teachers were also asked to indicate the number of students in their classes who has been diagnosed with ADHD and to estimate the number of students who they thought might have ADHD. Both sets of teachers indicated that they thought there were students with undiagnosed ADHD in their classes, but Dutch teachers reported significantly fewer students in both the actual and perceived categories. Class size was related to US teacher perceptions, but not Dutch perceptions.
Janet DeSimone and Rene Parmar (2006) noted the purpose of their
descriptive study as to investigate middle school general education
mathematics teachers’ beliefs and self-perceived knowledge regarding
teaching students with learning disabilities (LD) in inclusive classrooms.
Teacher beliefs regarding administrative support and higher education teacher
preparation were also examined. The survey on Teaching Mathematics to
Students with Learning Disabilities in Middle School was completed by 228
sixth-, seventh-, and eight-grade general education mathematics inclusion
teachers from 19 states. In addition, telephone interviews were conducted
with a subset of 26 survey respondents. Frequency analyses were performed
on the survey data, with x² test comparing teachers on demographic variables.
Follow-up interview responses were summarized to elaborate on the major
research questions. The findings revealed three central issues: (1) teachers
had a limited understanding of the mathematics learning needs of students
with LD, (2) teacher collaboration was judged to be the most beneficial and
available resource by general educators teaching students with LD in
inclusive mathematics classrooms, and (3) teachers did not feel that teacher
education programs at the pre-service level and professional development
at the in-service level were adequate in preparing them for teaching
students with LD in inclusive mathematics classrooms. Implications and
recommendations for teacher preparation and program implementation are
provided.

Chai, et.al (2006) remarked that personal epistemological beliefs
influence one’s cognitive and metacognitive operations in a significant way.
They also influence how teachers conceptualize teaching. It is therefore
essential for teacher educators to understand the Epistemological beliefs that
pre-service teacher are holding to foster mature epistemological outlooks that
could facilitate educational reforms. This study surveyed 537 Singapore
pre-service teachers’ epistemological beliefs. The results indicate that
Singapore pre-service teachers were fairly homogenous in their beliefs. They place much emphasis on learning effort. Although they seem to be inclined to believe that knowledge is uncertain, they also tend to believe in the experts. Generally, the profiles suggest that it may be necessary for Singapore teacher educators to foster more mature epistemological outlooks among its pre-service teachers.

DeSimone, Janet and Parmar, Rene. S (2006) explained the issues and challenges for middle school mathematics teachers in inclusion classrooms. The purpose of this qualitative study was to investigate typical middle school general education mathematics teachers’ beliefs and knowledge of students with learning difficulties and inclusive instruction and to gain an understanding of the process of inclusion as it is implemented in middle school classrooms. In-depth interviews, surveys, and classroom observations were conducted with seven teachers. The constant comparative method was used to analyze all interview and observation data. The findings reveal that even teachers who believe that inclusion is being successfully implemented are unclear about their responsibilities towards included students and the learning characteristics and specific mathematics teaching approaches that would be effective. The general educators feel that they were grossly under-prepared during pre-service and in-service for the realities of inclusion teaching. The study provides insights that can be used to enhance pre-service and in-service programs for teachers and underscores the necessity for building teamwork and collaboration among general and special education middle school teachers.

Lane, Kathleen, et.al (2006) explored teachers’ (N=717) expectations of student behavior along school level (elementary vs. middle vs. high), program type (general vs. special education), and school type (high risk vs. low risk). Results indicated that all elementary and middle school teachers shared similar views regarding the importance of self-control skills, whereas
high school special education teachers viewed self-control skills as significantly more important than did high school general education teachers. High school teachers rated assertion skills as significantly less important relative to elementary or middle school teachers. Results also indicated that teachers at high-risk schools viewed self-control and assertion skills as more critical for success than did teachers at low-risk school.

Graczyk, Patricia, et.al (2005) examined urban educators attitudes toward commonly recommended interventions for students with attention deficit hyperactivity disorder (ADHD). Participants included 358 pupil personnel services (PPS) professionals-school psychologists, social workers, and counselors – and 70 classroom teachers from urban elementary schools. On average, PPS professionals and classroom teachers expressed little confidence in the effectiveness of commonly used classroom, mental health, and pharmacological treatments for ADHD. For PPS professionals, a moderately positive correlation was found between self-confidence and a small positive association was found between knowledge of ADHD and effectiveness ratings for classroom interventions and mental health interventions, and a small positive association was found between knowledge of ADHD and effectiveness rating for medication. Teacher self-confidence was positively associated with effectiveness ratings for classroom interventions. Knowledge of ADHD was negatively correlated with teacher perceptions of the effectiveness of classroom and mental health interventions. Neither child gender nor ADHD subtype influenced effectiveness ratings. Results are discussed in regard to the urgent need for urban educators to experience greater success in their efforts to implement interventions for students with ADHD and for research focused on the unique needs of children residing in urban, low-income communities. Vignettes for subtypes of attention deficit hyperactivity disorder are appended.
Reid and Ken (2004) researched first of its kind to focus primary head teachers and teachers’ attitudes to attendance issues in two distinct but similar-size authorities in England. As part of the fieldwork 192 head teachers were interviewed and a similar number of primary teachers from the same schools. All heads of special schools within the authorities and a similar number of teachers from the same schools participated. The data were analyzed and presented by group. The conclusions suggest that the data may provide significant insights into attendance issues for other education authorities, primary head teachers, teachers and special school staff, it should also be helpful to those interested in attendance issues such as education welfare officers, attendance officers, learning mentors, home school liaison officers, advisers and school improvement staff as well as parents, researchers and policy makers.

Kataoka, Mika et.al (2004) explored on the principals and teachers perceptions of learning difficulties: a study from Nara Prefecture, Japan. In this study, perceptions of Learning Difficulties were obtained from 128 principals and 123 teachers in the Nara prefecture, Japan. A factor analysis indicated that five factors underlie perceptions of learning difficulties: changes in the family and social situation, insufficient knowledge and support for learning difficulties, teachers’ abilities and professional development, teachers’ situation and governmental issues. Teachers’ situation was perceived to be the main factor, whereas the least important factor was governmental issues. Teachers mainly indicted agreement on the factor of important knowledge of and support for students with learning difficulties. Principals were more aware of governmental issues than teachers. The aim of the present study was to add to the single Japanese study of perceptions by comparing principals’ and teachers’ perceptions of learning difficulties in the Nara Prefecture, Japan. This prefecture was selected because no prevalence survey of learning difficulties had been undertaken, nor had the support
system been established. However, the Nara Parents’ Association of Children / Individuals with LD was active in advocating for the introduction of a support system, and some teachers tried to offer support to students in their classrooms who they thought had learning difficulties. Thus, there was some activity at a grassroots level.

Rasaratnam, et.al (2004) conducted a study on Attitude to Medication of Parents/Primary Carers of People with Intellectual Disability, to investigate the influence of attitudes of carers of people with intellectual disability (ID) towards giving medication. Ninety-three carers of service users who are currently attending outpatients clinic (Harrow Learning Disability service) were interviewed, using the RAMS (Rating of Attitude to Medication Scale) interview schedule. A significant association was found between relationship of the carer to the service user and overall positive or negative attitude towards medication, with a disproportionate number of parents expressing a negative attitude in comparison with professional carers (46% vs. 11%). This study suggests more work needs to be done with family carers than with professional carers to improve compliance with medication. Stigma is still associated with ID and psychiatric disorders. The family carers responses may be projecting their feelings related to the impact of having a child not only with ID, but also with additional psychiatric problems. The implication of the study for psychiatrists is the identification of a number of areas that could be usefully explored before writing a prescription.

Monteiro and Cecilia (2003) explores difficulties that prospective elementary mathematics teachers have with the concepts of ratio and proportion, mainly when they are engaged in solving problems using algorithm procedures. These difficulties can be traced back to earlier experiences when they were students of junior and high school. The reflection on these difficulties by student teachers, comparing to informal ways of solving the problems is a fundamental step of the pre-service programme in which they are involved. In
this communication also present and discuss an attempt to promote
development of prospective teachers’ own knowledge of ratio and proportion as
well as their awareness of the pupils’ difficulties on this subject.

Brett Evbrhart (2003) found that the Preservice teachers have indicated
that they are somewhat less comfortable working with students with
disabilities. Research shows that curricular modifications in teacher education
programs would enable preservice teachers to be more prepared for
classrooms that include students with disabilities. Much of the work in teacher
education dealing with preparing teaching candidates for working with
students with disabilities has focused on attitudes and program revision. This
paper is a preliminary look to determine the need for further study of anxiety
levels of preservice teachers in physical education before and during lessons
with students with and without disabilities. Preliminary findings suggest that
more research is needed that focuses on preservice teaching performance and
other outcomes in lessons with students with disabilities. Additionally, it is
recommended that teacher education programs construct a systemic structure
to track anxiety levels as they relate to teaching performance in clinical
teaching experiences with students with disabilities.

Parker Audra and Neuharth Pritchett Stacey (2002) experimented on
management of students with specific learning difficulties. To manage the
students with learning difficulties in regular classroom the following are the
teaching approaches to be followed. a) Reading, writing, spelling and math’s
skills should be explicitly taught, leaving nothing to chance. b) The skills are
utilized in a meaningful way so that reading, writing and arithmetic are used
for a real purpose, not merely as a drill exercise. c) Phonological awareness
should be an essential component of remedial teaching. d) More attention
must be given to phonic skill development than the contemporary approaches
to the teaching of reading. e) Metacognitive and self-monitoring strategies;
metacognition can be described as understanding and controlling one’s own
thinking. It refers to an individual’s capacity to monitor and regulate his/her mental processes while approaching a new learning task on problem solving (Ashman and Conway, 1989), metacognition has two main components: Awareness of the skills needed to perform a specific task effectively (a knowledge of the appropriate attack strategies to use), and the ability to use self-regulation to ensure successful completion of the task (i.e. planning one’s actions, checking progress) and coping with any difficulties as they arise.

Conte and Richard et.al., (1995) introduced a classroom based social skills intervention for children with learning disabilities. A social skills programme for learning disabled children consisting of coaching, role-playing and information sharing was implemented over a 6 month period by a clinical psychologist in collaboration with classroom teachers. When compared to the control group, participants in the experimental programme demonstrated greater social acceptance and improved social problem – solving skills.

Hannah and Shore (1995) compared metacognitive performance of gifted, gifted learning- disabled, learning-disabled, and average males in grades 5 and 6 and grades 11 and 12. For metacognitive knowledge, skill on think-aloud error detection reading, and comprehension, the performance of gifted learning-disabled students resembled that of gifted students more than that of learning-disabled students.

Pugach, et.al (1995) investigated teachers and students views of team teaching of general education and learning disabled students in two fifth – grade classes. Based on interviews with nine learning-disabled students, nine of their non-disabled peers, and their three teachers, this article describes their perceptions of life in two fifth – grade classrooms with a permanent teaching team. Data were organised according to respondents' perspectives on three themes: 1) classroom social climate, 2) instructional effect, and 3) distribution of teachers' roles and tasks.
Reis, et.al (1995) conducted extensive interviews with 12 young adults with learning disabilities who were successful at the college level, as well as with their parents, along with a thorough review of available school records, in order to examine how well high-ability students with learning disabilities succeed in academic environments. Reports of positive school experiences primarily centered around individual teacher support.

Frith (1991) suggested the following support systems to teachers to support homework activities. Use peer tutoring for checking and assessing homework and for giving corrective feedback. Use computer-assisted instruction for students who have access to computers. Encourage parents to support the value of homework with their actions and words. Develop monitoring systems (such as graphs or checklists) for homework.

To sum up


2.3. An Overview of the Literature Reviewed

Dharmaraj (2000) reports the post-graduate teachers possess better awareness than the secondary grade and graduate teachers on the aspects of Learning Difficulties in Mathematics. Nagomu Ruth (2000) shows that the awareness programme was found to be effective. Reddy, Ramar and Kusuma (2000) have given prime tactics such as: physical guidance, shaping, modeling, match-to-sample, telling, cueing, prompting, time delay, programming procedures and refinement tactics to overcome Learning Difficulties in children. Reddy (2000) identified processing, spell checking proof reading programmes, brainstorming, speech recognition system, speech synthesis screen reading, word prediction, and personal frequency modulated listening systems and talking calculators were of much use to circumvent the learning difficulties in children. Selvakami (2000) reveals that the knowledge about the role of teachers to meet the special needs of the disabled children is improved by organizing awareness programme. And the awareness programme was found to be effective. Kataoka,-Mika; van-Kraayenkoord,-Christina-E; Elkins,-John (2004). Teachers mainly indicated agreement on the factor of insufficient knowledge of and support for students with learning difficulties. Principals were more aware of governmental issues than teachers. Rasaratnam,-R; Crouch,-K; Regan,-A (2004) Attitude to Medication of Parents/Primary Careers of People with Intellectual Disability. Suggests more work needs to be done with family careers than with professional careers to improve compliance with medication. Stigma is still associated with LD and psychiatric disorders. Carlson,-Shirley (2005) indicated that Scientists,
researchers, and educators know quite a bit about LD now, but they still do not know nearly enough to help the multitude of individuals afflicted with those conditions.


The said studies have not concentrated on teacher competencies to deal children with learning difficulties in normal classroom situations. Only one or two studies (Reddy (2000), Sujathamalini(2002)) were noticed about the role performance of special education teachers but not on teachers of normal schools. For better integration and mainstreaming, one should know what competencies are required and possessed by the normal school teachers at present. Thereby, the educational planners, and administrators can organize need based pre service and
in service training programmes for primary school teachers. A close look at these studies reveals that most of these studies are conducted on causes, characteristics and remedial instructional programmes for learning difficulties in children.

On the other hand, good number of studies has also been conducted abroad on learning difficulties. [Affleck et al. 1988, Baiden 1984, Case, Catherine V. Morsink 1983, Coronado V. Marco 1995, Crisfield 1996, Haines and Torgesen 1978, Holcomb et al. 1995, Hudson et al, 1987, Lisa Pericola 1997, Pugach et al. 1995,]. Many of these studies are concentrated on the competencies required for teacher to handle normal children, disabled children and children with learning difficulties. This review of literature itself shows that, to a greater extent, the teacher training programmes have incorporated learning difficulties components in their training curriculum. Whereas in India attempts have not been made effectively to incorporate the learning difficulties concepts in teacher training curricula at primary level.

At this point, research studies to identify the required competencies of high schools teacher to deal students with learning difficulties are the need of the hour, particularly in a country like India where wastage and stagnation are more. Further, the effect of personal variables of the teachers on competencies required to handle learning difficulties in children will help to recruit right type of teachers to handle those children. The present study is an attempt in this direction and the methodology adopted in this investigation is presented in the forthcoming chapter.