



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Children with Learning Disabilities in Reading

SWATI MONDAL

Ph.D

Assam University, Silchar

INTRODUCTION

Children are precious for our society. They may be different physically, economically, intellectually. Children may be individualized from one another to varying degrees. An exceptional child is one who deviates from the normal child in physically, mentally and socially. The concept of learning disabilities is still new in many developing countries.

“Learning Disability” is also a kind of exceptionality. It was first used by a psychologist Dr. Samuel Kirk of Chicago, U.S.A in 1963. Children with learning disabilities used to be diagnosed with minimal brain dysfunction“. It refers to a disorder in one or more of the basic psychological processes involved in oral expression, reading comprehension, mathematical calculation. When children are not able to learn, they diminish the capacity to gain new experience. They are unable to learn, because something prevents them from learning which either internal or external causes. This is termed as “Learning Disability” (Umadevi,1997). Among all those various issues learning disability is one of them. In India, according to the census (2011) revealed that out of the 121-crore population, around 2.68 crore persons are learning disabled“ which is 2.21% of the total population. The census 2011 conducted by the Office of the Register General and Census Commissioner is the source for latest data on disabled persons in India. In the total population, the males and females are 51% and 49% respectively. The disability among children is a matter of serious concern as a wider implication. The census 2011 showed that 20.42 lakhs children aged 0-6 years are disabled, 61% of disabled children aged 5-9 years are attending educational institution in India. “Learning disabilities” is an “umbrella” term used to describe various types of neurological disorder namely dyslexia, dyscalculia, dyspraxia, sensory integration, auditory processing, visual processing, dysgraphia, dysphasia, aphasia. Learning disabilities are referred to as “hidden disabilities”. The Indian Education Commission (1964-66) also recommended education for children with learning disability in regular schools, guidance and counselling also provided to develop children’s academic achievement. The action policy on education (NPE, 1986) focused special attention on the education of CWD for achieving the goal of Education For All (EFA).

DEFINITIONS OF LEARNING DISABILITIES

The term “Learning Disability” refers to a specific kind of learning problems. It is a neurological disorder that affects a child’s brain. These children have normal or above intelligence in spite of, they have difficulty in one area of academic field like learning, understanding, copying, writing, listening, number of speech and communication. India has been introduced different definitions of disability. Persons with Disabilities Act (PWD Act, 1995) “Proclamation and Equality of the People with Disabilities in Asian and Pacific Region”.

According to Population census and National sample survey organization (NSSO, 2001) stated five types of disabilities (i) seeing, (ii) speech (iii) hearing (iv) movement and (v) mental awareness. Learning disability means “difficulty learning in a typical manner”. Children with learning disabilities can succeed a school and they may have difficulty in reading, writing, speaking, reasoning, recalling or organising information. The people with learning disabilities are having short attention span and lacking in concentration. It refers to a heterogeneous group of disorders. This group of disorders is manifested as significant difficulties in the acquisition and use of academic skills such as, reading, writing, language, mathematics. Learning disability refers to a number of disorders which may affect the acquisition, organisation, retention, understanding or use of verbal or normal information.

According to Vaughn & Hogan (1994) learning disability is a disorder in one or more basic psychological process. Thomas, Bhantej, & Jhon study showed that in India, an average class in schools has 5 students with learning disability. According to Sakuja (2004) 13-14% of school going children suffer from learning disability in India.

The Children with learning disabilities has shown a number of symptoms. These kinds of symptoms are given below-

- They may have trouble with pronouncing words, letter;
- The children may have problem with understanding the words. They may struggle to learn the alphabet;
- May have trouble to express the ideas in writing;
- They may have a limited number of vocabularies;
- They seem to be confusion left and right turn.

Children with learning disabilities have difficulty problems with physical, mental, verbal or emotional. Learning disabilities is generic term. It is manifest by a significant difficulty in listening, speaking, writing, reasoning, or solving mathematical problem (Hammill, 1990). Kirk (1962) stated that learning disability as a retardation, disorder or delayed development in one or more of the process of speech, reading, spelling, language, writing or arithmetic resulting from a possible cerebral dysfunction and/or emotional or behavioural disturbance, not from mental retardation, sensory deprivation or cultural or instructional factors. According to IDEA Act (Individual with Disabilities Education Act, 2004) of U.S stated that learning disability mean, “ A disorder in one or more of the basic psychological process involved in understanding or in using language, spoken or written, they may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations.” For school age population the IDEA provides the most widely definition of Learning disability. They specify 4 factors, those are-

- Difficulty in primary result of visual, hearing or motor disability
- Mental retardation,
- Emotional disturbance,
- Cultural, economic, environmental disadvantage.

DIFFICULTY AREAS IN READING

Fluency skill-

Fluency refers the ability to read. Hudson, Lane, Pullen (2005) states that “reading fluency is made of at least three elements: Accurate reading of connected text at a conversational rate with appropriate prosody or expression”. Educators recognized that fluency is an important skill of reading. Breznith (1987), Armstrong (1983), Knupp (1988), Lesgold (1985), Pinnul (1987) study found that fluency is highly correlated with reading comprehension. When a student has fluency in reading that students have quality in reading comprehension. Skinner (1997) found that students who read lists of words with him slowly those students were more fluent with words compare to those who read with him at a faster rate.

Phonological processing skill-

Child's phonological skills play a major role as the child assigns sounds of the language along with letters. Phonological skills of dyslexic children influence the normal reading development (Høien and Lundberg, 2000). Tunmer and Greaney's (2010) stated that dyslexia are mainly caused by deficits in phonological processing skills. It sometime been used an umbrella term for different aspect described by Tunmer and Greaney (Elliot and Grigorenko, 2014).

Reading Comprehension skill- Difficulties in Reading comprehension skill occur when there is a problem to grasp the meaning of words, phrases and paragraphs. They may have inability to letter and word recognition, understanding words and ideas also reading speed and fluency and vocabulary skills. It is diagnosed by specialists as specific reading comprehension deficit (S-RCD).

TYPES OF LEARNING DISABILITIES

Different types of disabilities are:

Reading Disability (Dyslexia)-

Reading disability is known as dyslexia. Dyslexia is one of the common classifications of learning disabilities. It is a disability related to the area of language. A person who is suffering from dyslexia has trouble with understanding reading words. Dyslexia people have difficulties with specific language skill, reading and pronouncing words. The word "dyslexia" was originated from Greek word. "word blindness" was replaced by "dyslexia". Confusion with similar looking words, "b" may look "d", "on" looks like "no", "6" looks like "9", "w" may look "m".

Writing Disability (Dysgraphia)-

Dysgraphia is another term of learning disability in writing that is related to the difficulty in writing problems with hand writing, poor spelling, poor spatial planning, inconsistent way of spacing. The word dysgraphia derived from two Latin words "dys" which means "impaired" and the other is "graphia" means, "making letter forms by hand". The word dysgraphia related with brain issues. Dysgraphia encompasses with understanding or using languages.

Mathematical disability (Dyscalculia)-

Dyscalculia is the third important kind of learning disability. It mainly includes drawback with math related problems. Mathematical disabled have inconvenient to solving academic problems. Also, it seems children with dyscalculia may struggle with linguistic difficulties which is use in mathematics. They may have a sort of understanding of numbers and even numerical symbols. Children often confuse with shape discrimination, size discrimination, set of numbers and counting, symbolizing.

Dyspraxia-

Dyspraxia is also an essential type of learning disability. It is a "developmental coordination disorder" It effects fine or gross motor coordination in children. Dyspraxia people having difficulty in motor skill d struggle with hand eye coordination, balance and motor dexterity. Motor dexterity means having problems with movement and coordination in order to write.

Auditory processing disorder-

Auditory processing disorder is a kind of learning disabilities where an individual fell trouble to listen sound and the problem with reading, comprehension and language. It is not easy to deal with remembering language and processing related task, also they are unable to distinguish between sounds. But they fell no trouble to recall, non-verbal and environmental sound.

Visual processing disorder-

It is a type of disorder involves difficulty making sense of what is seen even though vision is intact. Children may be found some challenging in the areas of recalling and using visual processing disorder, remembering order or meaning of symbols, words, recognizing objects, differentiating in colors, letters, numbers, perceiving distance, depth, identifying information from books, pictures, charts, graphs and maps.

Attention deficit hyperactive disorder-

Attention deficit hyperactive disorder is not considered to be a learning disability. It can be determined to be a disability under the individuals with disabilities Education Act (IDEA). The significant characteristics of attention deficit hyperactive disorder are attention, hyperactivity, and impulsivity.

Organizational learning disorder-

It is a type of learning disability associated with executive functions and frequently accompanies with other learning disabilities. Children have difficulties in allocating time, setting down and functioning effectively when expectations change, organizing desks, finding materials.

Non-verbal learning disability-

Non-verbal learning disability is one of the important types of learning disability. Children with this disorder are not be able to recognize and translate non-verbal cues like facial expression, tone of voice. It referred to a neurological disorder. Children who are suffering from this kind of disability having a trouble with visual-spatial, intuitive, evaluative, holistic processing function.

LEGISLATIONS FOR LEARNING DISABILITIES IN INDIA

The gross enrolment ratio has increased over the past years in primary education. In India (2015), the gross enrolment ratio in primary education was 108.6%. However, the scenario looks very optimistic. But 40% of the students drop out of school before achieving of their primary education. There are four states have taken various measures for identification and diagnosis of specific learning disability in India, namely Maharashtra, Karnataka, Kerala, Delhi. In Maharashtra (1996), was the first to formally grant children with special learning disability to avail the special provisions to enable them to achieve education in regular mainstream schools. The State Board recognizes three hospitals for certification such as Lokmanya Tilak Municipal Medical College, Mumbai Sion Hospital and Nair Hospital. Concessions provided by Maharashtra government for children with learning disabilities from I to XII. In the other state Karnataka, candidates with special learning disability need to be certified as dyslexic from the National Institute of Mental Health and Neuro Sciences (NIMHANS), Bangalore; St. John's Hospital, Bangalore; All- India Institute of Speech and Hearing, Mysore and any psychiatrist working in a government hospital, any clinical psychologist with an M. Phill qualification and attested by a government doctor. In Kerala, for specific learning disabilities with a learning disability and I.Q assessment report from a psychiatrist above rank of assistant, surgeon in any government hospital till 2016. Students with dysgraphia, dyscalculia, dyslexia countersigned by the District Education Officer (DEO). The Delhi high court stated that, dyslexia as a form of disability has ordered to Delhi University to grant admission to dyslexia students' basis of their 3% quota for person with disabilities. (The Tribune, 2004) Delhi government has planned to test 35,000 students for identify learning disabilities. Study revealed that, out of 6.2 lakhs, 3.5 lakhs students failed to read their text book. The assessment was conducted by the government of Delhi for classes VI-VII (2016). Before the assessment, a campaign was launched in 2016, named "Every Child Can Read." It was noticed that about 1 lakh students out of 3.5 Lakhs were able to read, but 35,000 students had revealed no progress. As per Hindustan Times report in 2016 the Delhi government has planned to launched another project "Smile", under which 35,000 students will be tested. Special assistance to these students also be provided by the government. After taking this initiative of four states, it is noticed that Goa government introduced a novel scheme (2005) to promote education among students with special needs, children with learning disabilities and for slow learners.

REVIEWS OF RELATED LITERATURE

In a research study, reviews of related literature plays a significant role in research areas. It helps the researcher to plan the study in proper way. The researcher must locate previous research studies especially from professional journal articles, books, dissertations, thesis, newspapers, academic papers, internet, report and other secondary sources. It is an essential and significant aspect of research process. It demonstrates the researcher's knowledge of the field.

- Studies related to children with learning disabilities
- Studies related to children with learning disabilities in reading.

Studies related to children with learning disabilities

Tiga and Kapoor (2011) conducted a study on development of a package to increase competence of learning disabled children. The main objectives of the research study:

- To identify the children with learning disability in regular schools
- To identify competence among children with learning disability in regular schools
- To design and develop a package in increasing competence among children for learning disabilities in regular schools
- To find out effectiveness of package in increasing competence among children with learning disability. For the purpose of research study 23 samples were taken from two affiliated schools in U.P boards. Researcher used tools for learning disabled identification scale (self-constructed) and children's competence scale (self-constructed).

Findings:

Findings of the research study that 66% of the total children have low competence, 30% of children belongs to normal competence and only 4% of children have high competence. On the basis of needs of learning disabled children content of the package and the effectiveness of the package presented in the form of booklets and folders. After instigate the package percentage of learning disabled children in high competence categories increased by 4%-21%, in normal competencies percentage are increased by 30 to 39, but in low competence children decreased by 60% to 43%. The study also found that mean value of pre score and post scores of competence of learning disabled children 3.14 which is significant at 0.01 and there is a significant difference between pre-test scores and post-scores. Study showed that learning disabled children have low level of competence in comparison to non learning disabled children.

Anette (2010) examined on learning difficulties and academic competence among children with and without learning disabilities. The main objectives of this research study, to examine learning difficulties besides academic competence. Researcher consists of 30 samples for study on learning difficulties. Experimental study was carried out and the children were examined for the learning difficulties and academic competence. Study showed that children with learning disabilities have low academic competence and they need special assistance.

Miglani et al. (2011) studied on the intelligence and achievement motivation among learning disabled children and non learning disabled children. Researcher used RSPM (Raven's Successive Progressive Matrices) to measure intelligence and GLAD (Grade Level Assessment Device, 1997) to measure need for motivation. There was no significant difference observed in intelligence. Study revealed that children with learning disabled higher need for motivation compared to children with learning disabilities.

P.Sreedevi (2008) highlighted that special need of parents of children with learning disabilities. Researcher adopted Ex-post facto design for the study. Through purposive random sampling researcher selected 60 parents of learning disabilities from two cities of Hyderabad and Secundrabad. Result showed that majority of parents give information regarding legislations related to learning disabilities and their families, necessity for guidance and counselling to understand their child's special requirement, personal social needs as formation of parent association.

K.Bhavani (2007) focussed in recent years, maximum attention provided to the needs and problems of students with learning disabilities in normal school. It is evaluated that about 5% school children having learning problems of all special educational categories. Researcher highlighted higher behaviour problems among the children with learning disabilities. During the year 2005, Study conducted on 25 students who investigated to the Sweekar Rehabilitation Institute for handicapped in Secundrabad. Out of 25 students 16 students were identified as learning disability in distinct areas like, reading, writing, arithmetic, motor perceptual coordination and remedial education need to improve their academic achievement.

Sheila Devraj, Samsilah Rosian, Sidek Mohd, Rahil Mahauddin (2009) experimented that there was a significant correlation between symptoms of dyslexia and discipline problems among Malaysian students. Study conducted on 197 students of grade III and IV standard from a National primary school. Study indicated that there was a significant negative correlation between academic achievement and symptoms of dyslexia among III and IV standard both. Study also revealed that there was a correlation between discipline problems and symptoms of dyslexia. Study indicated a trend where the contribution of symptoms of dyslexia to discipline problems increases as the student progresses through school. It was highlighted that a comparison also made between the boys and girls. Findings of the study showed that there was no significant difference between boys and girls who recognised as dyslexic.

Shelton (2014) presented case study related to students with learning disabilities in an inclusive classroom. Researcher was selected two students from fourth grade with learning disabilities in two different situations (writing for test preparation and writing for digital stories). Student's writing behaviours, process, and products included in this study. Researcher suggested that classroom teachers need to transform teaching of writing by drawing on students' home literacy's to improve their creativity. Findings of this research demonstrate a test driven teaching approach tends to limit students ability.

Anjela J. Fawcett et.al (2001) conducted a study on children with learning disability. Researchers selected children with learning disabilities from two schools. Sample administrated through comprehensive battery which included tasks such as phonological, speed, motor and cerebellar. Investigator divided children into a group based on their I.Q. Non discrepant group (IQ of less than 90) and their group was discrepant group (example- the children suffering from learning disability I.Q of 90). It was found that non discrepant group on the phonological tasks, speed and motor tasks were separately impaired like the discrepant group. Study revealed that cerebellar test (measured the postural stability, muscle tone). The non-discrepant group was comparatively better than the children in the discrepant group. Findings of the study was proving the cerebellar deficit hypothesis for dyslexia.

Studies related to children with learning disabilities in reading

Patrick Snellings et. al (2010) conducted a study on reading disability. The main objective of the study was to find out the role of speech perception accuracy along with speed in fluent word decoding of reading disabled children. Control group and the children with reading disability were presented chronologically matching in a natural speech a same and different phoneme discrimination activity to test the perception of consonant clusters and single consonant. Researchers revealed that children with reading disabilities were comparatively slower than control group in recognising similar words. It was found less distinct phonemic categories.

Elizabeth B. Meisinger et. Al (2010) study tried to know the diagnostic use of reading fluency measures in identifying children with learning disabilities. The sample size was 50. Researches identified a group of children within the sample showed deficits in reading fluency along with rapid naming speed and reading comprehensions. Researches revealed that word reading skill assessment could not identify children with reading disability. It was very important to assess reading fluency apart from word reading. Study highlighted that if anyone fails to do, it may result children with reading disabilities may be in under identification.

Alison M. Mitchell et.al (2013) studied on the relationship between vocabulary knowledge and novel word reading. 4th grade children were participated in the study. Children were tested on standardized measures of word identification, decoding along with receptive vocabulary. Experimental word identification also measures where these students had not seen words before. Researcher conducted on experimental measure, the pair of word were matched on printed frequency and orthographic pattern i.e variety of spelling highlighted. Nevertheless, it differed in terms of frequency i.e higher or lower expected oral exposure for children. It was found that children receptive vocabulary knowledge was related to performance on both standard and experimental word identification. Study focussed on the students read the words better with high expected on oral frequency on experimental task than words with lower expected oral frequency.

Elizabeth Swanson et al (2013) attempted to study to analyse the reading interventions using social studies content for children with learning disability. Researchers included age from kindergarten to grade 12. Study tried to observe the effect of reading interventions using social studies. Reading interventions included mnemonics, reading along with answering questions used in the context of social studies. Findings of the study was the mean of the analysis conducted was 1.02. It was highlighted that reading intervention using social studies content has positive effect on outcomes among children with learning disabilities.

Evelin Geiser et al (2014) invested on one aspect of timing perception. It is known as temporal grouping. It is used to check whether the children with reading disabilities have any kind of impairment in auditory timing perception. 6 to 8 years children with and without dyslexia were included in the study. Researcher highlighted that temporal grouping are present in the prosodic phrase boundaries. Also, it facilitates the processing of speech at synthetic level. It was found that prosodic facilitation was measured by checking their efficiency of processing a sentence for synthetic ambiguities spoken with facilitation and neutrally spoken. Study revealed that both the prosodic facilitation groups were benefitted. It was found that their reaction times were faster as compared to neutral prosody. Study concluded that the use of prosodic phrase boundaries for speech processing is not impaired in children with dyslexia.

Baldrige, Caufield, Mary (2010) conducted a study on learning disabled student with reading difficulties. The aim of the study was the effect of a growth mindset intervention on the beliefs about intelligence, effort beliefs, achievement goal orientations and academic self efficacy of learning disabled student with reading difficulties. Researchers used a mixed method study examining pretest as well as post test survey responses utilizing descriptive statistics along with analysing qualitative data such as, class discussions, student interviews, journal responses and unit quizzes through themes and coding. Study included 12 high school students with learning disabilities in reading difficulties under treatment group. Findings of the study showed that after intervention student survey answer did not reveal a strong pattern of positive motivational change. Study revealed that slight post-test group mean increases in theory of intelligence, academic self-efficacy, mastery goal orientation, performance approach goal orientation. Study highlighted difference between gender in pretest and post test survey responses and in response to the intervention. Researcher also showed student's comment indicated confusion about survey questions and dissatisfaction about "growth mindset intervention".

Roberts (2010) study tried to use instant words to increase reading scores of first and second grade students. The researchers tried to examine the effectiveness of the Instant Word Notebook to increase student's achievement in word recognition. Investigator taught by Instant Word Notebook. On the other hand, control group was taught by teacher's regular teaching strategies. Researchers included four of nine Marzano et al (2001) instructional strategies for the study. Study showed classroom observation along with teacher interview and pre and post Instant word recognition to measure its effectiveness. It was noticed that Instant Word Notebook increases the word recognition of first and second grade students.

Weiss (2008) conducted a study on four kindergarten factors which were regarded predictive in identification of learning disabled with Individualized Education Program goals in reading. Third to fifth grade children were participated in this study. Researchers focussed on the four factors age on first day in kindergarten, socio-economic behaviour in classroom, reading skills and sound-symbol relationship in reading skills. Researchers used Logit analysis for Early Childhood Longitudinal study- kindergarten cohort (ECLS-K). It was found that entry age of kindergarten, socio academic behaviour and reading scores were significant predictor in determine learning disabled in reading at third grade. It was noticed that in fifth grade, reading and social academic behaviour were independently significant predictors for learning disability in reading.

Anjana (2006) study examined the prevalence rate of reading disabled children and impact intervention programme in remediation of reading difficulties. Researchers included pre-post experimental design. The sample size was forty, age between eight to ten years. IV grade from English medium schools of Panipat, Haryana were included in the study. Investigator used Mean, SD, t-test for data analysis. Findings of the study revealed that 8.68 percent of students were found to have reading disability in grade IV. Study also highlighted that it varied from 8.29 to 9.60 percent. Study also found that intervention programme was significant in remediation reading difficulties among learning disabled children.

Sledge-Murphy (2011) study tried to find the relationship between reading comprehension and oral reading fluency. One thousand ninety-four students who were diagnosed by using Dynamic Indicators of Basic Early Literacy Skills (DIBELS) along with Integrated Louisiana Educational assessment Program in the year 2008 and Spring 2009. DIBELS was recognised as a diagnostic tool and used to identify reading disabled children. On the other hand, iLEAP was used for meeting the child's needs. Study also examined the socio-economic states influencing in sub-areas of reading achievement. Researchers selected 15 elementary schools from North Louisiana district (7 title one schools and 8 non-Title 1 schools). Pearson Product-Moment correlation coefficient and linear regression analysis used by researchers for statistical data analysis. Findings of the study was DIBELS-ORF is significant predictors of student performance on iLEAP sub scores of reading. A significant relationship also found between reading comprehension and oral reading fluency.

Fries and Decker (2008) studied on reading disabilities. It was an extensive family study. Investigators were administered a series of psychometric tests to 125 reading disabled children and their parents and siblings and 125 control families. Study revealed that the learning disabled children achieved lower scores on some cognitive tests (Spatial reasoning, symbol processing speed). Study also found that the data conclusively demonstrate "the familial nature of reading disability". Study highlighted that the physical conditions that can inhibit a child's ability to learn. It includes visual and learning deficits, poor body image, spatial orientation, hyperkinesia (hyperactivity), under nourishment. Child's normal development such as social, psychological, academic affected by environmental factors like home, community and school. Traumatic experiences, family pressures, instructional inadequacies, lack of school experiences also included under this study and these conditions affect academic progress. Study highlighted that child is not considered learning disabled. However, the environmental conditions have contributed the deficits in memory, attention and other psychological process.

CONCLUSIONS

The paper describes the study on children with learning disabilities in reading. It is found that there are some studies which significantly focused on children with learning disabilities in various ways. Keeping in view about the texture of the society and empowering the component of the society, it is essential to give special attention towards this isolated area. The information from the current review may set a benchmark to assess the disease obstacles of the country. With a view to fill up the vast research gaps as well as discrepancies, investigator undertakes a study on this area. This is a loophole so the researcher is interested to study on effect of specific strategies on children with learning disabilities in reading.

LIMITATIONS

- The study is limited to children with learning disabilities only in reading.
- Study is based on review of related studies.

REFERENCES

- Kirk, S. A. (1963). Behavioral diagnosis and remediation of learning disabilities. *Proceeding of conference on Exploration into problems of the Perceptually Handicapped*. Chicago, III. Fund for perceptually Handicapped. Inc. 1963.
- Gautam, A. (2023). Learning Disability among school children: Role of Psychological Intervention. *International journal of Indian Psychology*, 11(3), 2239-2243. DIP:18.01.211.20231103, DOI: 10.25215/1103.211
- Individual with disabilities education IDEA, (1997): PL105-17. Note to the regulation for eligibility for children with attention deficit disorder.
- International Dyslexia Association (2000). Just the facts. International Dyslexia Association. www.dyslexiasd.org
- International Dyslexia Association (2007). Dyslexia Basic. International Dyslexia Association. www.ada.com
- Deshmukh, V. D., Nasir, Eram. (2021). Bridging the Gap: Reading difficulties and Identifying Reading Difficulties among children with and without special needs in inclusive setup. *International Journal For Innovative Research in Multidisciplinary Field*, 7 (10) 2455-0620. WWW.IJIRMF.COM
- Umadevi, M. R. (1997). Effectiveness of a remedial programme on improving reading comprehension skills among dyslexic children. Kuvempu university. Sixty survey of Educational research (Vol.I, 1993-2000). New Delhi : NCERT.
- Ramaa, S. (1990). Two decades of research on learning disabilities in India. *Dyslexia*. Vol.6(4).