Kenning Language Based Learning Disabilities

Dr. C. Siva Sankar, Associate Professor, Department of Education, Rajiv Gandhi University, Arunachal Pradesh.

Abstract

Language is patterned system of arbitrary sound signals, characterized by structure dependence, creativity, displacement, duality and cultural transmission. It plays significant role in academic community. From the researches, it is evident that school going children have been facing Language Based Learning Disabilities (LbLD). It is the need of the hour for primary and secondary school teachers to have knowledge on characteristics, causes, types, assessment procedure and intervention strategies for students with LbLD, positive attitudes towards children with LbLD and sufficient competencies to deal such children in teaching learning process. Teachers need to be well trained with latest approaches, strategies and tools with a view to enhance abilities of learners with LbLD academically. Key Words: Language, Language Based Learning Disability and Teacher

Introduction

Language is meant for expression of notions and for sharing of experiences. It is a set of human habits with respect to thoughts, feelings and actions. It is the most sophisticated and versatile means available to human beings for the communication of meaning. Language is patterned system of arbitrary sound signals, characterized by structure dependence, creativity, displacement, duality and cultural transmission. Each language has three major components namely; i) Form, ii) Content, and iii) Use. Form is related to phonology, morphology and syntax. Phonology studies rules that control sounds and how they combined. Morphology studies rules that control internal organization of words. Syntax studies rules that control how the words should be ordered in sentences. Content deals with semantics. Semantics studies the rules that control the words and their meanings. Use is related to pragmatics. Pragmatics studies rules that control the region for communicating deficit in form, content and use is referred to language learning disability. It requires four basic skills namely speaking, writing, reading and listening. Rogoff (2003) views that there are two teaching approaches in language learning namely; explicit and constructivist approaches. Constructivist approach is connected to situated learning, discovery learning, task based learning and scaffolding. Santrock (2007) tells that in language learning has two cognitive processes are responsible namely adaptation and organization. Adaptation takes place in the form of assimilation and accommodation.

Oakely (2004) admits that culture and environment play vital role in child's language learning. For children with Dyslexia, Dysgraphia and Dyscalculia, teachers have to give positive feedback and provide opportunities for practice in connection with student's strength, need and learning style. Teachers have to follows different teaching tools. Teacher has to teach necessary organizational skill, study skills and learning strategies. They have to establish positive working relationship with the students' parents. They have to use multisensory teaching methods. Parents have to support and integrate children activities with their strength and interest (Rueda, 2011 & Rogoff, 2003). There are psychological, sociological and emotional factors which acted as causes for language based learning disability. Social relations, socio-cultural tools and social practices may influence learners' cognition in language learning.

Language Based Learning Disabilities

Language Based Learning Disability is related to receptive and expressive language deficits. Receptive language deficit is the difficulty in listening to and/or understanding language. Difficulty may be at word level (vocabulary) and/or the sentence level (syntax). Children with receptive language difficulty (deficit) may exhibit certain characteristics such as: i) Inadequate attentions span, ii) Difficulty following directions, iii) Poor listening abilities, iv) Poor memory for information presented verbally, v) Difficulty recalling concepts, vi) Limited receptive vocabulary, vii) Difficulty understanding words with multiple meanings, viii) Difficulty categorizing related words or concepts, ix) Difficulty understanding figurative language, x) Difficulty with concepts of space, time and quantity.

Expressive language deficit refers to difficulty with production of language that adequately represents the child's intended message. It may also include problems with word retrieval, word use, sentence formation and/or conversational skills (Reitan, 1960). Children with expressive language deficit may possess certain characteristics such as: i) They speak incomplete or inaccurate sentences. Sometimes, speak in words or phrases. ii) They use pronounce plurals and possessives incorrectly. iii) They have difficulty with agreement of subjects and verbs. iv) They have difficulty telling a story or describing an event or explaining procedure in a logical sequence. v) They have very limited expressive vocabulary. vi) They use run – on sentences. vii) They rely upon gestures to supplement for oral language. viii) They have difficulty finding appropriate words to express meaning. xi) They avoid speaking in class. x) They have difficulty interacting with peers. (Rao et al., 2005).

Language is an effective tool to attain not only reading and writing skills but also speaking and listening skills. The quality of primary and secondary education is also reflected on language learning skills. But, some of children have been suffering from variety of Language Based Learning Disabilities. They are reading difficulties (Dyslexia), writing difficulties (Dysgraphia), calculation difficulties (Dyscalculia), word retrieval difficulties (Dysnomia), and spelling difficulties (Dysorthographia), expressive and receptive difficulties in order to overcome language deficits. There are many studies conducted on language based learning difficulties in abroad and India in the areas of reading difficulties (Dyslexia), writing difficulties (Dysorthographia), calculation difficulties (Dyslexia), writing difficulties (Dysgraphia), calculation difficulties (Dyslexia), and spelling difficulties. There are many studies conducted on language based learning difficulties in abroad and India in the areas of reading difficulties (Dyslexia), writing difficulties (Dysgraphia), calculation difficulties (Dyslexia), word retrieval difficulties (Dysorthographia), calculation difficulties (Dyslexia), writing difficulties (Dysgraphia), calculation difficulties (Dyslexia), word retrieval difficulties (Dyslexia), and spelling difficulties (Dysorthographia), expressive and receptive difficulties (Dysphasia) and motor coordination difficulties (Dysphasia) and motor coordination difficulties (Dyspraxia). Certain important studies are mentioned in order to emphasize importance of the present study.

Children with language learning disability may have word findings or word retrieval difficulties. They cannot use a word which they want to use. Some of the children having word finding difficulty can be affected on spoken and written language also. Children with language learning disability may have phonological awareness deficits. Children with phonological awareness deficits have difficulty in: i) Recognizing short or long words, ii) Identifying beginning middle and finale sounds of words, iii) Recognizing and producing rhymes, iv) Discriminating differences between sounds, iv) Learning decoding skills vi) Learning spelling patterns. Children with phonological awareness deficits need syllable awareness, rhyme recognition, initial and final phoneme identification (Henderson, 1987).

Sometimes, children with language learning disability may have pragmatic learning deficits. A child with pragmatic language deficits may have difficulty with social language such as child has difficulty interacting with peers has limited eye contact. Sometimes make odd and irrelevant comment. Children with language learning disability may have motor speech deficits. Children with motor speech

International Journal of Early Childhood Special Education (INT-JECSE) DOI: 10.48047/intjecse/V14I7.373 ISSN: 1308-5581 Vol 14, Issue 07 2022

deficits have distorted vowels sounds, drooling, difficulty to understand, groping of tongue when speaking inability to move the tongue and lips on commands (Richman & Eliason, 2001).

Children with language learning disability may have fluency disorder. Children with fluency disorder may have stuttering which is disruption in the flow and rhythm of speech. A person with stutters may exhibit behavior such as facial grimaces (unusual body movements). Children with language learning disability are also auto risk for social academic and/or emotional deficits. They may have disorder in the development of form, content and use of language. It also leads to deficit in articulation, fluency, voice, communication, argumentation, alternative communication and hearing (Jagtap, 2016).

Language difficulty may be minimized (stabilized) through communication techniques like questioning, modeling, expansion, self talk etc. By following receptive language strategies and expressive language strategies, it may be possible to stabilize receptive dysphasia and expressive dysphasia respectively (Reitan, 1960). Receptive language strategies include: i) Visual cue with verbal direction. ii) Framing listening rules in the classrooms. iii) Giving one direction at a time. iv) Teaching the meaning of certain works. Expressive language strategies include: i) create opportunities for the child to interact with peers verbally. ii) Encouraging child to speak in classroom. iii) Plan activities or lesson that focus on talking (Tallal et al., 1985).

Evidence Based Reflections

There are some researches related to reading difficulty (Dyslexia) in the domain of language based learning disability. Vellutino (1979) reflected that reading disability (dyslexia) was a language learning disorder manifested by difficulty in learning to read despite instruction, intelligence and socio cultural environment. It was also evident that the incidence rates of dyslexia were more in boys than girls. The ratio was 4:1 in India. Cantwell and Baker (1985) added that language based learning disability in relation to reading and comprehension could give negative impact on cognitive and academic profiles. Dyslexia was more anxious and depressed in addition to social and attention problems. Teachers' attitude was one of the most valuable predictor of the achievement. Scarborough (2009) revealed that children with reading disability had phonological deficits. Visuo–attentional and perceptual - auditory dysfunctions might adversely affect reading acquisition. Denton (2006) said that fluency, accuracy, and prosody were also important components of reading.

Rao et al. (2005) revealed that there was a close positive relationship between reading disability (dyslexia) and language deficiency in school students. Lack of motivation for study habits and for socio cultural climate were causal factors for dyslexia and they were also responsible for language deficiency. Reading disability gives path for behavioral problems and feeling of inferiority and poor academic achievements. Dyslexia could be overcome by following remedial teaching and constant practice.

Oakland et al. (1998) listed out basic reading components such as phonological awareness, alphabetic principles, mapping spoken sound to parts of words, rapid word reading, and vocabulary development, orthographic knowledge as naming and recognizing and reading comprehension. They said that reading difficulty might occur in these respective components. Beitchman (1997) reported that reading disorders among teenagers ultimately affected academic performance and interest in studies and school environment. It means dyslexia leads to poor academic performance, lack of interest as well as sociability. Nicolson (1994) reported that children with dyslexia were showing less performance on tasks like phenomena segmentation, pictures, naming, speed tachistoscopic word recognition and balance than a children without dyslexia. Age differed in reading and spelling disabilities (Dyslexia and Dysorthographia) and also revealed that gender had a significant impact on writing disability (Dysgraphia). There was no any impact in connection with religion reading, calculation, writing and spelling.

There are some researches related to writing difficulties (Dysgraphia). Children with Dysgraphia were unable to spell the words properly and unable to frame certain words by looking a picture and also unable to develop a small story using clues. Sobhana (2004) conducted a study for identifying difficulties in written English among secondary school learners. She reported that there was a significant association between the performance of students in written English and family related variable (parental income, parental education, and parental occupation). Curry (1991) reported that quality improvement in writing could help for student to gain mastery over formulation of sentences and mechanics. Myklebust (1973) reported that the severe learning disabled children showed greatest deficits in syntax that was connected to written expression.

There are certain researches related to calculation difficulties (Dyscalculia). Burny and Desoete (2012) reported that children with dyscalculia had problems with mathematical procedures and semantic memory retrieval. Camos (2008) reported that dyscalculia could originate at an early age. Following book intervention could help children with dyscalculia to develop vocabulary and mathematical skills. Mazzocco, Feigenson and Halberda (2011) reported that many children had significant mathematical learning disabilities (dyscalculia) despite proper schooling. Children with dyscalculia had significantly poorer approximate number system (ANS) precision than children with mathematical achievement.

Christophe et al. (2010) found that developmental dyscalculia was a pervasive difficulty affecting number processing and arithmetic. 6% of school aged children were suffering from developmental dyscalculia. Piazza et al. (2010) reported that developmental dyscalculia was a specific learning disability that would affect acquisition of knowledge about numbers. Brown and Aylward (1996) added that children with dyscalculia were also exhibited disorder in visual spatial memory. It was reported that there was a close relationship between developmental dyscalculia and spatial working memory (Rosselli et al., 2006).

Hartmann (2007) found that students with dyscalculia had conceptual difficulties in the areas of analyzing reasoning and abstract thinking. Koumoula et al. (2004) reported that occurrence of dyscalculia was more in rural areas than in urban areas. Landerl et al. (2004) found that dyscalculia was a specific learning disability in numerical processing. Kumar (2003) found that there was a significant difference in post - test performance of learners with dyscalculia than pre-test performance of learners with dyscalculia by using variety of instructional strategies.

There are some researches on word naming difficulties (Dysnomia). Word retrieval tasks require the co-ordination of attention, perceptual, conceptual, lexical and articulatory sub-processes. They also add that poor readers experience some difficulties in accessing and retrieving verbal labels for visually presented stimuli. Messer and Dockrell (2006) report that word retrieval deficits may be occurred as a result of faulty semantic or phonological representations. Semantic representations refer to codes pertaining to meaning of language and phonological representations refer to letter sound association. Lexical retrieval deficits could be a result of disconnect between semantic and phonological codes. Word naming process can be influenced by factors as word frequency, age of language acquisition and type of word. Word findings difficulties are result of poor vocabulary or lack of exposure to certain words (Messer & Dockrell, 2006).

MCcrory et al. (2004) report that Dysnomia is associated with expressive language disorder yet individuals with Dysnomia often do not show sign of reduced verbal output. They may display deficits with remembering information in a sequential manner despite good expressive language skills. Tingley (2003) report that word retrieval deficits are influenced by cognitive difficulties or by product of language and learning difficulties. Dockrell et al. (2001) found that children with word retrieval deficits produce

more inappropriate verbs. Dysnomic children may have difficulty in connection with semantic aspects. Dysnomic children may have difficulty in colour naming.

Richman and Ryan (2000) have reported that children with language difficulties may demonstrate Dysnomia characterized by difficulties in short-term auditory memory, word retrieval and the rapid object naming. Naming and word retrieval difficulties include visual perceptual deficits, memory deficits, vocabulary deficits and rate deficiencies. Naming problems (Dysnomia) were common in many people who suffer from brain injury. Naming behaviour would be evaluated with binary, plus/ minus, and multidimensional scoring system (Ray, 1986).

There are some researches on spelling difficulties (Dysorthographia). Jagtap (2016) reported that dysorthographia was characterized by difficulties with spelling, auditory, miss-spellings, errors in conjugation and grammar. Orthographic learning would be relevant in making transition to more fluent reading and accurate spelling. Spelling practice has been found in superior orthographic learning relative to print exposure through reading alone. It occurs as a result of subsequent reading and writing activity. It comes through experience with printed language. Orthographic is the process of applying letter sound knowledge.

There are some researches on expressive and receptive language deficits (Dysphasia). Dysphasia is a medical term to indicate a delay in the acquisition of language. Richman and Eliason (2001) tell that deficit in language-dominant left hemisphere of the brain that affect one or more basic language functions of comprehension, naming (identifying item of with words), repetition of words or phrases and speech. Learning disability (communication Disorder) is classified as five types namely: i) Expressive disorder, ii) Phonological disorder, iii) Receptive – expressive disorder, iv) Stuttering and v) Communication Disorder. Brown et al (1996) adds that dysphasia may affect performing numerical calculations, spelling words and writing complete sentences.

Richman and Ryan (2000) reported that verbal expression difficulties may lead to anxiety, low self esteem and frustration. Beitchman (1997) reported that children with dysphasia may experience emotional symptoms such as low self-esteem, poor social skills and anxiety. Children with dysphasia may have deficit in auditory perception (Tallal, 1985). They also possess deficits in memory, labeling naming, serial order processing and verbal and concept formation and also association (Lindgren et al., 1986)

Children with dysphasia fail to see what is going on around circumstances, become confused during conversations considered inattentive or distracted or slow. Dysphasia influences social emotional problems also. Sometimes, dysphasic children may also be seen as illogical (Cantwell & Baker, 1985; Chess & Rosenberg, 1974). Dysphasia is a non-fluent and lacking in vocabulary and reading comprehension difficulties. Deficits in language process have been linked to delinquent behavior and also connected to psycho-social difficulties such as behavioural outburst, immaturity hyperactivity, in attention and aggression and attention (Losse, 1991). Dysphasia could be classified into three types' viz., expressive dysphasia, receptive dysphasia and global dysphasia. Dysphaxic demonstrates difficult to comprehend spoken language. Global dysphasia is a combination of expressive and receptive deficits. It does not impact overall cognitive functioning and the several academic areas may be affected.

There are some researches on motor coordination difficulties. The key symptoms of dyspraxia were clumsiness and lack of physical co-ordination reported that dyspraxia resulted in fine and gross motor problems and/or speech difficulties. They classified dyspraxia into two types namely: 1) Ideational dyspraxia (planning dyspraxia): It affects the planning, sequencing and co-ordination of motor activities. 2) Ideo-Motor dyspraxia (executive dyspraxia): It affects fluency, speed and skills. Most of the dyspraxic individuals display elements and spatial directional awareness. Nicolson (1999) said that dyspraxia was associated with abnormalities in the cerebral cortex. Dyspraxic children could exhibit their frustrations on parents and siblings in the form of bad behaviour. Dyspraxic children need school based interventions like individual attention, physical exercise, extra time for homework, social skill training, encouragement and

International Journal of Early Childhood Special Education (INT-JECSE) DOI: 10.48047/intjecse/V14I7.373 ISSN: 1308-5581 Vol 14, Issue 07 2022

confidence building; Health service interventions like physiotherapist & speech therapist; Home based interventions like parental care and concern. Gubbay(1978) reveals that dyspraxia is not thought to be curable but early diagnosis treatment and educational support can help children substantially overcome their motor difficulties. There is an urgent need for closer collaboration between the health and education services in the management of children with dyspraxia (Gibson, 1996). Research is needed to identify the most effective and cost effective setting for treatment.

Sugden and Wright (1998) added that there was a link between DCD and ADHD (Attention Deficit Hyper activity Disorder). Portwood (1996) reported that there would be at least one dyspraxic child in every school. There was possible link between dyspraxia in pre-maturity stage and dyspraxia in maturity stage. Gibson (1996) reflected that emotional and social support from the parents was needed for dyspraxic children. Portwood (1996) had developed motor skills screening test. The result of motor screening test and Wechsler Intelligence scale form basis for diagnosis of dyspraxia. Dewey (1995) defines dyspraxia is a disorder of gesture. Dyspraxia was a developmental rather than acquired condition. Finally it is evident that Dyspraxia was an inability to plan, organize and to co-ordinate movements. Henderson (1987) suggested that movement ABC (Assessment Battery for Children) was a comprehensive assessment package for identifying pediatric motor disorder.

Curry (1991) added that children with dyspraxia might have problems with the writing and organizing information on the page in academic subject viz., English. They may have limit success in music, design technology and art or craft. Losse (1991) reveal that children with dyspraxia show poor academic record and low self-esteem in period of adolescence. Children with dyspraxia may have chance to exhibit anxiety disorders. Gubbay (1978) reported that 6% of all children had dyspraxia. Risk factors for dyspraxia were pre-maturity, post-maturity and pre-natal problems.

Conclusion:

Language is basic tool for learner to communicate notions, feelings, values and cultures. It is social and perceptual phenomenon. It can be analyzed and described based on different criteria. It plays significant role in academic community. From the researches, it is evident that school going children have been facing Language Based Learning Disabilities(LbLD) which include reading difficulties (Dyslexia), writing difficulties (Dysgraphia), calculation difficulties (Dyscalculia), word retrieval difficulties (Dysnomia), and spelling difficulties (Dysorthographia), expressive and receptive difficulties (Dysphasia) and motor coordination difficulties (Dyspraxia). It is the need of the hour for primary and secondary school teachers to have knowledge on on characteristics, causes, types, assessment procedure and intervention strategies for students with LbLD, positive attitudes towards children with LbLD and sufficient competencies to deal such children in teaching learning process. Teachers need to be well trained with latest approaches, strategies and tools with a view to enhance abilities of learners with LbLD academically.

References:

- 1. Beitchman, J. H. (1997). Learning disorders with a special emphasis on reading disorders. A review of the past 10 years Journal of the past 10 years. *Journal of the American Academy of child and Adolescent psychiatry*, *36*(1), 1020 1032.
- 2. Burny, & Desoete. (2012). Clock Reading: An underestimated Topic in children with Mathematics Difficulties. *Journal of Learning Disabilities*, 45 (4) 351-360.
- 3. Brown, F. R., Aylward, E. H., & Keough, B. K. (1996). *Diagnostic management of learning disabilities: An inter disciplinary/lifespan approach*. Singular Publishing Group.
- 4. Christophe, M., Mejias, S., & Noel, M. P. (2010). Symbolic and non-symbolic number comparison in children with and without dyscalculia. *Cognition*, 115(1), 10-25.

- 5. Camos, V. (2008). Low working memory capacity impedes both efficiency and learning of number transcending in children. *Journal of Experimental child Psychology*, 99(1), 37-57.
- 6. Curry D. (1991). Breaking the cycle of failure. *Special Children*, 49(1), 10-12.
- Cantwell, D.P., & Baker, L. (1985). Psychiatric and learning disorders in children with speech and language disorders: A descriptive analysis. *Advance in learning and Behavioural Disabilities*, 4(1), 29-47.
- 8. Carrie, A. K. H. (2011). Social Emotional differences of students who have nonverbal disability or Dysphasia. lowa.
- 9. Chess, S., & Rosenberg, M. (1974). Clinical differentiation among children with initial language complaints. *Journal of Autism and Development Disorders*, 4(2), 99-109.
- 10. Devaki, N. (2016). Cutting Edge Strategies to Combact Dysorthograhia. *International Journal of Multidisciplinary Research and Development*, 3(4), 98-100.
- 11. Denton, C. F. (2006). An evaluation of intensive intervention for students with persistent reading difficulties. *Journal Learning Disabilities*, *39*(5), 447-466.
- 12. Dewey .D. (1995). What is developmental dyspraxia? Cognition, 29 (3), 254-274.
- 13. Dockrell, J. E., Messer, D., & George, R. (2001). Patterns of naming objects and actions in children with word finding difficulties. *Language and cognitive process*, *16*(1), 261 286.
- 14. Gubbary, S. S. (1975). *The clumsy child: A Study of Developmental Apraxia and Agnostic Ataxia.* Saunders.
- 15. Gubbay, S. S. (1978). The Management of Developmental Apraxia. *Developmental Medicine and child Neurology*, 20(1), 643 646.
- 16. Gibson R. C. (1996). The effects of dyspraxia on family relationships. *British Journal of Therapy and rehabitation*, *3*(1), 101 105.
- 17. Hartmann, P. A. (2007). Comparing students with mathematics learning disabilities and students with low mathematics achievement in solving word problems. *Dissertation Abstracts International*, 68 (12), 5030-5035.
- 18. Henderson, S. E. (1987). The assessment of Clumsy Children old and new approaches. *Journal of child psychology and psychiatry*, 28(1), 511 527.
- 19. Jagtap, M. V. (2016). Teacher & parents' role: A multidimensional source to overcome learning disability (L.D). Scientific Publishers.
- 20. Khurana S. (1980). Non Intellectual factors in learning disability. *Indian Journal of psychiatry*, 22(1), 43-54.
- Koumoula, A., Tsironi, V., Stamouli, V., Graham, A., & Von, A. M. (2004). An epidemiological study of number processing and mental calculation in Greek school children. *Journal of Learning Disabilities*, 37(5), 377-388.
- 22. Kumar, M. (2003). Effectiveness of certain instructional strategies to overcome learning difficulties in Arithmetic at secondary school level. *Indian Education Abstract*,6(2), 53-55.
- 23. Landerl,K., Bevan,A., & Butterworth, B.(2004). Developmental dyscalculia and basic numerical capacities. A study of 8-9-year-old students. *Cognition*,93(2), 99-125.
- 24. Losse, A. (1991). Clumsiness in Children: do they grow out of it? Ten year follow up study. *Developmental Medicine and Child Neurology*, *33* (1), 55 69.
- 25. Lindgren, S. D., Richman, L.C., & Eliason, M. J.(1986). Memory processes in reading disability subtypes. *Developmental neuropsychology*, 2(1), 173-181.
- 26. Myklebust, H. R. (1973). Development and disorders of written language. Grune and Stratton.
- 27. Mazzocco, M. M., Feigenson, L., & Halberda, J. (2011). Impaired acuity of the approximate number system underlies mathematical learning disability (Dyscalculia). *Child Development*, 82(4), 1224-1237.

- McCrory, E. J., Mechelline., A., Frith.U., & Price, C. J. (2004). More than words: A common neural basis for reading and naming deficits in developmental dyslexia? *Brain*, 128 (2), 261 267.
- 29. Messer, D. & Dockrell, J.E. (2006). Children's naming and word findings difficulties Description and explanations. *Journal of speech, Language and Hearing research,* 49(1), 309-324.
- 30. Nicolson, R. (1999). Association of abnormal cerebellum activation with motor learning difficulties in dyslexic adults. *Lancet*, 353 (9165), 1662–1667.
- 31. Nicolson, R. (1994). Comparison of deficits in cognitive and motor skills among children with dyslexia. *Annals of Dyslexia*, 44(1), 147-64.
- 32. Oakland, T., Black, J. L., Stanford, G., Nussbaum, N. L. and Balise, R. R. (1998). An Evaluation of the Dyslexia Training Program: A Multisensory Method for Promoting Reading in Students with Reading Disabilities. *Journal of Learning Disabilities*, 31(2): 140-147.
- 33. Oakley, L. (2004). Cognitive Development. Routledge.
- 34. Piazza, M., Facoetti. A., Trussardi, A. N., Berteletti, I., Conte, S., & Zorzi, M. (2010). Developmental trajectory of number acuity reveals a severe impairment in developmental dyscalculia. *Cognition*, *116* (1), 33-41.
- 35. Portwood, M. (1996). *Developmental dyspraxia: A practical manual for parents and professionals*. Durham country Council.
- 36. Ray, A. (1986). Academic achievement adjusted. *Physiological Abstracts*, 73(3), 889-895.
- 37. Rao, L. G., Narayan, J., & Mani, M. N. G. (2005). Status of Education: Children with Disabilities. NIMH.
- 38. Rosselli, M., Matute, E., Pinto, N., & Ardila, A. (2006). Memory abilities in children with subtypes of dyscalculia. *Developmental Neuropsychology*, *30*(3), 801-818.
- 39. Rogoff, N. (2003). The Cultural Nature of Human Development. Oxford University Press.
- Richman, L.C. & Ryan, S.M. (2000). Do the reading disabilities of children with cleft fit into current models of developmental dyslexia? *The cleft palate – Craniofacial Journal*, 40(2), 154 – 157.
- Richman, L. C. & Eliason, M. J. (2001). Disorders of communication: Developmental language disorders and cleft, palate. In C.E. Walker & M.C. Roberts (Eds.), *Handbook of clinical child psychology* (3rded). John Wiley & Sons.
- 42. Reitan, R. M. (1960). The significance of dysphasia for intelligence and adaptive abilities. *Journal of Psychology*, *50*(1), 355-376.
- 43. Rueda, R. (2011). Cultural Perspective in Reading, Handbook of Reading Research, M. L. Kamol, P. D. Pearson, E. B. Moje and Afflerback (eds.), *Handbook of Reading Research, Volume IV*, Routledge.
- 44. Santrock, J.W. (2007). A Topical Approach to Life-Span Development. Tata McGraw-Hill Edition.
- 45. Sobhana, N. (2004). A survey to identify the difficulties in written English among secondary school learners. *Experiments in Education*, 32(6), 8-18.
- 46. Sugden, D. A., & Wright, H. C. (1998). *Motor Co-ordination disorders in children. School of Education*. University of Leeds.
- 47. Tingley, S. J., Kyte, C. S., & Johnson, C. J., (2003). Single-word and conversational measures of word-finding proficiency. *American Journal of speech Language Pathology*, *12*(1), 359 368.
- 48. Tallal, P., Stark, R. E., & Mellitus, E. D. (1985). Identification of language impaired and normal children on the basis of rapid perception and production skills. *Brain and language*, 25(1), 314-322.
- 49. Vellutino, F. R. (1979). Dyslexia: theory and research. MIT press.